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An examination of the impact of postsecondary transition program models on college self-efficacy beliefs of first-generation college students

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AN EXAMINATION OF THE IMPACT OF POSTSECONDARY TRANSITION PROGRAM MODELS ON COLLEGE SELF-EFFICACY BELIEFS OF FIRST-GENERATION COLLEGE STUDENTS

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To my late grandparents Joseph Willis and Mary Grace Morrison, who were the first to hear about my plans to pursue my Ph.D. Thank you for your love and constant prayers. Continuing your legacy is my motivation.

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ABSTRACT

The primary purpose of this study was to examine the impact of postsecondary transition programs on the college self-efficacy beliefs of first-generation college students. Postsecondary transition programs were developed to address the challenges that all first-time freshmen face, including all first-generation students. While there are a number of postsecondary transition program models, the three models examined in this study were Developmental Academic, Residential Colleges, and First Year Intervention programs. Although there is a great deal of evaluative research regarding how postsecondary transition programs impact students' academic performance, there is a lack of research on how these programs impact students internal elements, such as self-efficacy. First-time freshmen students who participated one of the postsecondary transition programs exclusively were targeted for this research. The college self-efficacy beliefs of these students was the focus of this mixed methods study using the Social Cognitive Career Theory as the theoretical framework.

The research questions addressed by this study were directed toward comparing students' college self-efficacy beliefs based on the postsecondary transition program model and demographic factors which included first-generation status, gender, ACT scores, and income status. This mixed methods study was retrospective in nature given that second semester freshmen college self-efficacy beliefs were measured based on postsecondary transition programs that students participated in during their first semester. Surveys measuring students' self-efficacy on seven different subscales were administered to all first-time freshmen and followed up by individual interviews with first-generation student participants from each postsecondary transition program.

Overall, higher levels of college self-efficacy beliefs were reported by students who participated in the Residential College program. The Developmental Academic program participants reported lower levels of college self-efficacy beliefs. In addition, the study results revealed that there was not a significant difference in the levels college self-efficacy between First Year Intervention and Residential College students.

Findings from this inquiry have the potential to contribute to policy, practice, and future studies of postsecondary transition programs and how they impact students' college self-efficacy beliefs. Recommendations were made by the researcher from the study's findings included modeling Developmental Academic programs after Residential College programs and enhancing First Year Intervention programs

CHAPTER I: INTRODUCTION

Statement of the Problem

Pursuing a post-secondary education has become a major part of American society, with more than twenty million students enrolled in degree-granting institutions (U.S. Department of Education, 2011b). Attaining a college degree is perceived as primary means of improving one's socioeconomic status. Numerous studies illustrate that those who earned a college degree increased their earning potential over their lifetime in comparison to their peers who did not earn a college degree (Orr, 2003; Lee & Mortimer, 2009; U.S. Census Bureau, 2011). In 2009, people with a bachelor's degree earned an average annual salary of $56,665 while those with only a high school diploma earned $30,627 (Ryan & Siebens, 2012). With increased access to college degrees, students from low-income backgrounds depend on degree attainment to end their families' cycle of poverty and are pursuing college degrees in record numbers (Council on Education, 2009; Jacobson & Mokher, 2009). The majority of low-income college students are also first-generation students, meaning that their parents did not earn a college degree. Approximately one-third of entering freshmen are first-generation, and 24%, or approximately 4.5 million, are both first-generation and low-income (Martinez, et. al, 2009).

While in pursuit of a college degree first-generation students experience a number of challenges, which result in a different college experience from their counterparts, non-first generation college students. Over 20 years of research concerning the educational outcomes of first generation students suggest that these differing experiences result in higher levels of attrition. Nationally, only 15% of low-income, first-generation students graduate from college within six years (Engle & Tinto, 2008). More than a quarter leave after their first year — four times the dropout rate of higher-income, non-first-generation students.

Some of the challenges that are presented to first-generation college students in comparison to their non-first-generation counterparts are being academically less prepared for college, a lack of financial and emotional support, and higher rates of attrition (Cho, et.al, 2008; McCarron & Inkelas, 2006; Gibbons & Shoffner, 2004). In short, first-generation students face a number of barriers that continue to hinder their chances of completing college. As a result of being faced with these barriers, first-generation college students are at a disadvantage as compared to their non-first-generation counterparts, This plays a large part in their college experience (Bui, 2002; Pascarella & Terenzini, 1991).

Although being first-generation presents a number of challenges in itself, studies have shown that generational status alone does not create the achievement gap that exists between first-generation and non-first-generation college students (McGregor et al, 1991; Zalaquett, 1999; Ishitani, 2006); other factors play a mediating role beyond generation status. One of those factors is self esteem. Non-first-generation college students have been found to have higher levels of self-esteem in comparison to first-generation college students because they have parents who can contribute to their transition from high school to college (McGregor et al. 1991). Variations in educational expectations among first-generation and non-first generation college students also affect their college success (Ishitani, 2006). Low educational expectations often lead to an increased likelihood of not graduating from college (Vuong, Brown-Welty, & Tracz, 2010). Demographically, first-generation students are more likely than their advantaged peers to come from minority backgrounds (Engle & Tinto, 2008), a fact has been linked to high attrition and low academic performance (Zalaquett, 1999). The obstacles that first-generation college students face have a negative effect on their perceived belief in themselves and their abilities, as well as their likelihood of persisting through challenges, all of which lower their academic performance

(Reynolds & Weigand, 2010; Vuong, Brown-Welty, & Tracz, 2010). Self-efficacy is defined as the perceived belief that one possesses the ability to be successful in executing a behavior that is required to produce a certain outcome (Bandura, 1997). Bandura (1997) built the human agency of self-efficacy on social cognitive theory. Focusing on outcome expectations and goals, which are tenets of self-efficacy, social cognitive theory has assisted potential first-generation college students with choosing a career (Gibbons & Shoffner, 2004). Research shows that high self-efficacy has a positive impact on academic performance (Zimmerman, Bandura, & Martinez-Pons, 1992). Other supporting research suggests that evaluating self-efficacy is a useful indicator of academic preparedness and is a modest predictor of academic performance (Hutchinson-Green, et. al., 2008; Kitsantas, Winsler, & Huie, 2008; Klassen, Krawchuk, & Rajani, 2008).

Postsecondary transition programs were developed in an effort to address the challenges that all first-time freshmen students face when they first step onto a college campus, including all first-generation students. The primary aim of postsecondary transition and retention programs is to help students succeed when faced with challenges, thus keeping them on track to attain their educational goals (Valentine, et al., 2011). Most postsecondary transition programs focus on specific factors that make students' college experiences successful, such as academic achievement, campus involvement, and developing a social support system. By focusing on these specific factors, postsecondary transition programs tend to follow a "model" that is used in the design and delivery of the services offered to students. Three of these models include Developmental Academic, First Year Intervention and Residential Colleges.

Developmental Academic postsecondary transition programs typically target at-risk students who are admitted to a university with a probationary status because they did not meet regular admissions requirements. They also consist of services targeting students whose first semester

GPA placed them on academic probation. Tutoring, college success courses and workshops, and advising are integral components of Development Academic models. For the purpose of this study, a Developmental Academic postsecondary transition program is a series of workshops that covers the tools and strategies that students need to be academically successful. This program model is an effective and efficient way for students to increase their GPA so that it is indicative of their ability. The Developmental academic program that was used in this study did not consist of a living-learning or social component for student participants (Louisiana State University Center for Academic Success, 2013).

First Year Intervention postsecondary transition programs are more holistic by encompassing all of the tools that a first-year college student needs to be successful. These tools include Academic Success; College Readiness; History & Traditions; Involvement; Leadership Development; Relationship Building; and Student Services (Louisiana State University First Year Experience, 2013). The first year intervention program included in study is a retreat-style program which immediately engages student participants in campus life by providing lodging for three days and two nights for the duration of the program, providing a short-term living learning experience. Social activities are a large part of the First Year Intervention program with hopes that students will develop a social support network with their peers and upperclassmen. The First-Year postsecondary transition program also provides an opportunity for new students to partner with upper-level students to develop a mentoring relationship (Louisiana State University First Year Experience, 2013).

Residential College postsecondary transition programs provide a seamless living-learning environment, using a holistic approach to the postsecondary transition process in its entirety. The Residential College program included in this study consists of eight programs that are geared

toward student interests and majors (i.e. Science, Mass Communication, Information Technology, Honors, Career Exploration, Engineering, Business, and Agriculture) (Louisiana State University Department of Residential Life, 2013).

The purpose of the program is to foster the development of three core outcomes: critical thinking ability, communication skills, and sense of community and social responsibility. The program allows student participants the opportunity to engage in the learning process both inside and outside of the classroom by students living and taking the same courses as their peers, thus developing a level of peer support. The program also houses faculty-in-residence who are available to student residents for supplemental instruction within the Residential College facility (Louisiana State University Department of Residential Life, 2013).

Postsecondary transition programs were developed to address the challenges that all first-time college students face, including first-generation students, based on a number of factors, including generational, demographic, and internal elements. Although there is much evaluative research regarding how postsecondary transition programs impact students' academic performance (U.S. Department of Education, 1997; Gullat & Jan, 2003; U.S. Department of Education, 2004; 2005a; 2005b; Pitre & Pitre, 2009), there is a lack of research on the impact that postsecondary transition programs have on the internal elements (i.e. college self-efficacy) that affect the academic performance of the first-generation college students who receive services from these programs.

These internal elements include self-efficacy beliefs, which produce effects through students' cognitive processes, and which ultimately influence their academic achievement. Cognitive development is a significant measure of students' educational outcomes and academic achievement (Bandura, 1993). Research suggests that students who have a strong sense of self-

efficacy are better able to improve their cognitive capabilities (Schunk, 1989), thus regulating their own learning and mastering different subject matters (Bandura, 1993). Although research illustrates that self-efficacy plays a significant role in students' cognitive development, research studies involving first-generation college students and cognitive measures like self-efficacy are limited in the current literature. This study will add to the current literature by examining the college self-efficacy of first-generation college students and how postsecondary transition programs that assist them with completing a college degree influence their college self-efficacy. The uniqueness of this study lies in using a sequential explanatory mixed methods design to develop a model that can be used in determining how the services provided by postsecondary transition program models impact students' college self-efficacy.

There are a number of sub-areas of self-efficacy and when combined create college self-efficacy (Solberg et al, 1993). For the purpose of this study, college self-efficacy is a culmination of social efficacy, course efficacy, college academic self-efficacy, intrinsic goal orientation, peer learning efficacy, critical thinking efficacy, and time and study environment management efficacy. Each of these areas are essential to college students' success; therefore they were examined individually in this study.

Purpose of the Study

The purpose of this study was two-fold. The first aim was to examine postsecondary transition programs and how college self-efficacy acts as a motivational mediator, which could influence postsecondary transition programs' positive effect on student retention and graduation. The second aim was to examine the impact of postsecondary transition program models on the college self-efficacy of first-generation college students, accounting for demographic factors.

Using both quantitative and qualitative methods enhances elaboration and expansion on these aims of inquiry.

The findings in this study are of value to the retention efforts of college and university administrators. There are a number of postsecondary transition program models and approaches. Conducting a study of comparisons between the postsecondary transition program models and the populations that are served through these programs would be most beneficial to college and university policymakers. Close examination of postsecondary transition programs could potentially inform program budget decisions during this time of budget cuts in higher education. Research on postsecondary transition program models has yet to take a closer look at whether or not these programs influence students in an indirect way that affects their entire college experience. This study adds to continued research of understanding first-generation college students and what helps them develop a high level of college self-efficacy, which could ultimately lead to increased rates of retention at and graduation from postsecondary educational institutions among this population of college students.

Rationale

The rationale for this mixed methods study is to examine the treatment integrity of postsecondary transition program models by assessing the fidelity of the services that are provided by these programs, and to enhance the significance of the study by mixing quantitative and qualitative techniques to maximize the researcher's interpretations of data (Onwuegbuzie & Leech, 2006). The results of this study yield a deeper understanding of the impact that postsecondary transition programs make on the college self-efficacy of first-generation college students. This research increases the current knowledge base of first-generation college students'

college self-efficacy by determining which postsecondary transition program models have the greatest impact.

By employing a sequential explanatory mixed methods design and using the Course Efficacy and Social Efficacy subscales of the College Self-Efficacy Inventory (CSEI) (Solberg et al., 1993), the College Academic Self-Efficacy Scale (CASES) (Owen & Froman, 1988), and the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991), this study will measure students' level of college self-efficacy after participating in a postsecondary transition program. Individual interviews provide a deeper understanding of the specific factors that impact the college self-efficacy of first-generation college students associated with these program models.

Research Questions

Many questions are of particular interest to the researcher concerning the impact of postsecondary transition programs on the college self-efficacy of first-generation college students, but the following research questions have been regarded as the most important to the scope of this study. The design of the research questions allows for the examination of the connection between postsecondary transition program models and college self-efficacy beliefs of first-generation college students.

RQ1 (a): What is the difference in levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy

between students who receive services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models.

RQ1 (b): What is the difference in levels of college self-efficacy between *first-generation* and *non-first-generation students* who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ), there will be a difference in levels of college self-efficacy between first-generation students who receive services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models, and non-first-generation students who receive services from postsecondary transition program models.

RQ2: What is the difference in levels of college self-efficacy between *male* and *female* students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ), there will be a difference in levels of college self-efficacy between male and female first-generation college students who are receiving services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models.

RQ3: What is the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *ACT score range*?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College College self-efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ), there will be a difference in levels of college self-efficacy between *Low ACT* score range and *High ACT* score range who are receiving services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models.

RQ4: What is the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *Parent Income Level*?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ), there will be a difference in levels of college self-efficacy between *Low Income, Middle Income, and High Income* college students who are receiving services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models.

For this study, it is important to note that postsecondary transition programs are not specifically designed to target college self-efficacy; rather, they are meant to impact academic performance and retention behavior. However, as the review of the literature suggests, college self-efficacy may be indirectly affected by participation in services provided by postsecondary transition programs. As first-generation students associate college with academic success and

being academically successful by being exposed to components that increase academic success (e.g., academic skills workshops, living learning community, acclimation to campus culture), it is plausible that they will concurrently acquire greater self-confidence and motivation in executing the academic tasks required to achieve acceptable grades in their courses and gain a sense of a supportive environment on a college campus (Perry, DeWine, Duffy, & Vance, 2007).

Significance of the Study

The significance of this study lies in the premise that it is critical to provide directives to postsecondary transition programs that deliver services to first-time college students, particularly first-generation college students. Since the onset of increased access to post-secondary education to students of all backgrounds, it has become imperative that colleges address the needs of these students. First-generation college students make up a large part of the current college student population and face unique challenges that often lead to high levels of attrition among them (Engle & Tinto, 2008).

Postsecondary transition programs are integral to retaining first-time entering college students, especially first-generation college students. Studies conducted on postsecondary transition programs examine their effectiveness by measuring GPA, retention, and graduation outcomes of student participants (Noble et al. 2007; Baker & Pomeratz, 2000). However, based on the review of the literature, there have been no studies that used college self-efficacy as an outcome measure when studying postsecondary transition program effectiveness. When evaluating the effectiveness of postsecondary transition programs, it is important to also consider researching how these programs indirectly influence other facets of college students' academic experience in hopes of understanding the total impact of the program.

Since the literature illustrates that college self-efficacy and achievement influence academic performance (Owen & Froman, 1988; Multon, Brown, & Lent, 1991; Zimmerman, Bandura, et. al, 1992; Bandura, 1993; Pajares, 1996; Torres & Solberg, 2001; Davenport & Lane, 2006; Gore, 2006; Strayhorn, 2010; Schunk & Mullen, 2012), and postsecondary transition program measurement outcomes are results of academic performance (Noble et al. 2007; Baker & Pomeratz, 2000), college self-efficacy should be included in postsecondary transition program studies as an outcome measure (Cambridge-Williams, Winsler, Kitsantas, & Bernard, in press). This study addresses the gap that exists in the literature by examining how postsecondary transition programs impact the college self-efficacy of first-generation college students. The results of this study present implications for postsecondary transition program design that may lead to enforcing policy to ensure that postsecondary transition programs continue to be effective, ensuring continued funding, and outlining the most effective services for student participants.

In addition, literature on college self-efficacy calls for the need for more mixed methods designs to be used so qualitative data can supplement existing quantitative research (Strayhorn, 2010). The use of grounded theory in this study is relevant given the sparse literature on college self-efficacy that is anecdotal but lacks firm grounding in the actual experiences of students. College self-efficacy literature also calls for further research on intervention programs and evaluating strategies used to promote self-efficacy beliefs (Multon, Brown, & Lent, 1991, p. 35). Multon, Brown, & Lent (1991) also suggested studying how interventions impact students' self-efficacy and academic outcomes.

Definition of Terms

The operational definitions of terms to be used in this study are as follows:

College self-efficacy: Students' perception of whether or not they are capable of achieving their educational goals by performing necessary tasks (Vuong, Brown-Welty, & Tracz, 2010). For the purpose of this study, college self-efficacy was measured using the College Self-Efficacy Inventory (Solberg et. al., 1993), the College Academic Self-Efficacy Scale (Owen & Froman, 1988), and the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991).

First-generation college student: A student whose parents do not possess a four-year college degree (Bui, 2002).

Conclusion

This study seeks to understand the impact of postsecondary transition programs on college self-efficacy beliefs of first-generation college students. Based on the increased access to post-secondary education and the increase of first-generation students pursuing a college education, postsecondary institutions must place value on postsecondary transition programs and show interest in further examining how the services they provide indirectly impact student outcomes other than GPA, retention, and graduation. Existing research links college self-efficacy to students' academic actions and behavior, which influence GPA, retention, and graduation; therefore further evidence is needed to determine the degree of relationship, if any, that exists between postsecondary transition programs and college self-efficacy.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

Given the increased need to support first-generation college students, the purpose of this study is to examine postsecondary transition program models and their influence on the college self-efficacy of first-generation college students. The main objective of postsecondary transition programs is to provide students with the tools necessary to be retained and to persist on to graduation. By exploring the link between different postsecondary transition program models and college self-efficacy beliefs, further evidence can be established of the value of postsecondary transition programs in their role in retaining and graduating students.

The areas of research that provide the foundation for this study are first-generation college students, retention, postsecondary transition programs and college self-efficacy. This chapter reviews literature pertinent to first-generation college students, which includes the challenges they face in comparison to their non-first-generation counterparts. Studies on their self-efficacy are also mentioned. Details regarding the history and design of postsecondary transition programs follow the discussion on first-generation college students. Finally, an extensive review of the literature on self-efficacy and the development of college self-efficacy concludes the chapter, which provides the foundation upon which this study was developed. The literature provides important data to suggest that first-generation college students face a number of challenges, distinguishing them from other college student populations. Studies that have been completed on the self-efficacy of first-generation college students will be discussed. The theory and concepts of self-efficacy will also be discussed.

First-Generation College Students

Brief History of First-Generation College Students. Based on the history of the United States, first-generation college students (students whose parents did not earn a four-year degree) are a familiar phenomenon. Due to the Morrill Acts in the 1800s, many African Americans gained access to a college education (Thelin, 2004). In 1944, the G.I. Bill allowed for war veterans to seek out a postsecondary education, further expanding access to higher education (Thelin, 2004). The recent transformation of higher education has called for open access, which has created opportunities for students whose parents have not attained a college degree.

Differences in First-Generation and Non-First-Generation College Students.

Although they have been afforded the opportunity to pursue a postsecondary education, research shows that first-generation college students have a different college experience from second-or third- generation college students. Parents who have earned a college degree are able to pass on knowledge about college culture to their children, and parents who do not have a college degree are unable to do so (Hertel, 2002). Sociodemographic factors such as family characteristics, parental income, socioeconomic status, and academic ability may be important influences in educational attainment of sons and daughters of parents who did not earn college degrees (Pascarella & Terenzini, 1991). Most first-generation college students come from low socioeconomic backgrounds and they, in addition to the rest of U.S. society, perceive that attaining a college degree will result in a lifelong change in their economic and social status (Hahs-Vaughn, 2004). The publication "A Portrait of Low-Income Young Adults in Education" also provides research supporting the idea that many first-generation college students attend college in order to assist their families financially causing them to worry about financial aid and making ends meet during their first-year of college (The Institute for Higher Education Policy,

2010). Social class and its effect on the college experience has also been studied and has been found to be a factor in the educational attainment of first-generation college students (Aries and Seider 2005; Walpole, 2008).

Van T. Bui (2002) conducted a study examining various attributes of first-generation colleges students in comparison to students whose parents obtained college degrees or had some college experience. The three areas that were studied were the background characteristics of first-generation college students at a four-year university, the reasons why they chose to pursue a college education, and their first-year experience on a college campus. The primary question in this study was whether or not first-generation college students were in need of uniquely designed campus support services at colleges and universities in order to assist them with becoming more successful. The strategy of inquiry used was quantitative, survey research, with 64 first-generation college students, 68 students whose parents both had at least a bachelor's degree, and 75 students whose parents had some college experience but did not obtain a college degree participating in the study. All students were in the third quarter of their first year at UCLA.

A questionnaire was used for this study that asked questions regarding the students' background characteristics, reasons for pursuing higher education, and first-year experience. The results showed that first-generation college students were more likely to be ethnic minority students, come from lower-socioeconomic backgrounds, speak a language other than English at home, and score lower on the SAT than the other students. A multivariate analysis of variance (MANOVA) showed that all three groups of students differed in their reason for pursuing a higher education. First-generation college students gave higher ratings of importance for the reasons of gaining respect/status, bringing honor to their family, and assisting their family financially after graduating from college. A multivariate analysis also showed that the three

groups differed in their first-year experiences. First-generation college students felt less prepared for college and worried more about financial aid in comparison to the other students.

Overall the results of this study showed that first-generation college students are demographically different from students whose parents have some college experience or college degrees. Most of them come from low-socioeconomic backgrounds which lead to why many of them attend college in order to assist their families financially and why many of them worry about financial aid during their first-year of college. With these results, campus student support services can tailor programs to address the specific needs of first-generation college students on their respective campuses (Bui, 2002).

In their qualitative study, Aries and Seider (2005) make the case that first-generation students, who are often also low-income, still face more challenges than students who are low-income but have a parent who possesses a college degree. When presenting the finding that the self-confidence of low-income students increased for those who attended an elite college, it is noted that this was not necessarily the case for students who were first-generation. "…the increased feelings of self-confidence are more frequently voiced by students who had a parent who graduated from college, who arrived at Little Ivy with more cultural capital than their first-generation lower-income counterparts." (Aries and Seider, 2005, p. 432).

Walpole (2008) conducted a study that focused on how social class affects the college experiences and outcomes for African American students at four-year colleges and universities. The 1985 Freshman Survey, the 1989 Follow-up Survey, and the 1994 Follow-up Survey were utilized, yielding a sample of approximately 12,400 subjects from over 20 colleges and universities who responded to all three surveys. Crosstabulation and logistic regression were used to analyze the data, examining differences between low and high socioeconomic status

(SES) students' experiences in college and to determine the extent to which these students' investment in attending college paid off. The findings showed that SES seemed to mediate students' outcomes through academic achievement, degree aspirations, and career orientation. The findings call attention to the academic disadvantage African Americans face when entering college and the importance of practitioners focusing on increasing students' GPAs. Furthermore, student affairs professionals need to be particularly attuned to social class differences in planning activities that appeal to all African American students, particularly at predominantly white institutions (PWIs) (Walpole, 2008).

In an effort to answer the call for activities to assist this particular college student population, Gibbons & Shoffner (2004) examined how Social Cognitive Career Theory (SCCT) can be used to as a way to assist potential first-generation college students with some of the challenges faced during their junior and senior years in high school. The SCCT was developed as a way to use socio-cognitive constructs in career and academic development which include self-efficacy, outcome expectations, and goals (Lent, Brown, & Hackett, 1996). One of the tenets of this theory include that self-efficacy beliefs are not fixed and are constantly changing as a result of one's experiences which include interactions with people, one's environment, and one's own behaviors. Self-efficacy is included in the SCCT as one of the main factors that relate to student's career, academic development, and choices. Gibbons & Shoffner (2004) included a case study on a 16-year old African-American student who made good grades in STEM subject areas, but did not believe that he was capable of graduating with a four-year degree and pursuing a STEM career. After meeting and developing a relationship with another African-American male who had a very similar upbringing, graduated from the college near his home, and had become a successful engineer, the student's viewpoint regarding pursuing a four-year degree and

STEM career completely changed for the better. The study implied that his self-efficacy improved as a result of this interaction and therefore influenced his career and academic development.

Challenges for First-Generation College Students. Research shows that first-generation students face a number of obstacles while in college in comparison to their peers whose parents attained college degrees. (McCarron & Inkelas, 2006; Cho, et.al, 2008). Cho et. al (2008) conducted a study that examined students' responses regarding psychological, personal, and institutional factors that affect first-generation college students' college choice process. The research questions were 1) what psychosocial, institutional, and personal factors are most important to students in choosing to attend a particular college and 2) how do these factors operate differentially across generational status, gender, ethnic, and SES. Over 1,500 students participated in a survey comprised of 39 questions which focused on factors that affected participant's college choices, and participants' high school experiences. After a multivariate analysis of covariance (MANCOVA) was used for analysis, the results of the study showed that although psychosocial factors affect students' college choice a great deal, financial and academic factors take precedence over psychosocial factors when students are making choices about what college to attend. Since they are more likely to come from low socioeconomic backgrounds, first-generation college students tend to be less knowledgeable about college costs and application processes.

Parental encouragement and involvement is a good predictor of students' postsecondary education aspirations, especially in conjunction with the student's family financial situation (McCarron & Inkelas, 2006). This leads to the idea that parents who are not familiar with the social and cultural constructs of postsecondary education are less able to contribute to the

postsecondary aspirations of their children, ultimately leading to a lack of social and cultural capital.

From an econometric perspective, social and cultural capital are the resources that may be invested to enhance profitability (Perna, 2000). Econometric models are based on "a comparison between the present value of perceived lifetime benefits and the present value of perceived lifetime costs." (Perna, 2000, 118). In addition to social norms, values, and expected behaviors, social capital may take on the form of information-sharing channels and networks. Cultural capital is the culmination of factors derived in part from one's parents that defines an individual's class status. The lack of social and cultural capital among first-generation college students can lead to the lack of familiarity with choosing a college, the application process, navigating a new campus, college selection process, career decision-making process, academic advising, and many other obstacles in postsecondary education.

Witherspoon et al. (1997) explains a similar coping strategy regarding African-American students minimizing their connection to their culture and assimilating into the school climate in order to be more successful, describing it as "cultivating a raceless persona." (p. 345). In relation to this idea, as first-generation students seek to raise their status, they in some ways cultivate a "generation-less persona." Once on a college campus, first-generation college students can develop social and cultural capital by having non-academic experiences, such as mentoring and social support, which can help them to become more successful in college. By gaining more social and cultural capital on a college campus, first-generation students begin to use a coping strategy of disconnecting from their generational-culture (class) and assimilating into the college culture in order to improve their chances of matriculating through college and making it to

graduation (Witherspoon et al., 1997). The coping strategy that first-generation college students use could be referred to as taking on a "generation-less persona."

Ishitani's (2006) study investigated the effects of precollege attributes of students on attrition and degree completion behavior. Structural equation modeling was used for analysis as it is a typical statistical technique used in many studies of student departure. Ishitani (2006) found that first-generation college students were more likely to depart from college than students whose parents were college-educated. The study defined attrition behavior as students who left their initially enrolled institutions and did not return either to their initial or other institutions by the year 2000. This definition of attrition also included voluntary withdrawal (i.e. dropout) and academic dismissal (Ishitani, 2006). The findings indicated that first-generation students were at higher risk of departure than their non-first-generation counterparts and that not only the challenges brought on by generational status could alter students' persistence, but also their pre-college characteristics could. The study validated that higher high school academic performance translates to student persistence. Practitioners must be aware of the precollege characteristics that first-generation students possess and their potential long-term effects on the student experience.

Martinez et. al (2009) also studied factors that mediate and moderate university attrition in first-generation college students and had similar findings. The measures of the factors of attrition related to college entry characteristics included ACT composite scores, high school rank percentile scores, college aspirations, and lack of funds. Factors of attrition related to college experience were also measured which included job status, college semester GPAs, heavy alcohol use, drug use, academic challenges, social challenges and psychological distress. After using discrete time event-history analysis, their findings were consistent with other studies that have found that first-generation students are at risk of completing college (Warburton, Bugarin, &

Nunez, 2001; Ishitani, 2006; Martinez et. al, 2009). Their findings showed that first-generation students had lower college GPAs and work more part-time and full-time jobs in comparison to their peers. First-generation students were more at risk of attrition than their peers, with non-enrollment ranging from 4.9% to 25.8% for first-generations students and 0.1% to 19.2% for their counterparts (Martinez et.al, 2009).

McCarron & Inkelas (2006) studied whether parental involvement has an effect on the educational aspirations and attainments of first-generation college students as compared to non-first generation students. They also studied whether the educational aspirations of first-generation college students were the same as their actual attainments. Longitudinal data from a nationally representative sample generated by the National Educational Longitudinal Study 1988-2000, which consisted of 1,879 first-generation students and an equal sample size of students who had at least one parent who earned a bachelors degree as the comparison group. First-generation student status, non-first-generation student status, gender, race/ethnicity, SES, parental involvement, educational aspirations, and educational attainment were used as the variables. In order to address the second research question, first- generation respondents' answers to their degree attained as of 2000 (i.e., eight years out of high school) were analyzed to determine if students attained the educational aspirations indicated in 1990 as high school sophomores.

Multiple regression analysis was used to determine if there was a relationship between parental involvement and educational aspirations. Parental involvement was measured with a composite scale consisting of variables such as "how often parents helped the respondent with homework." Independent variables of SES, gender, race, and respondent perceptions of the importance of good grades were also factored into the multiple regression in blocks. Results

showed that more of the variance in educational aspirations was explained by perception of the importance of good grades and parental involvement. Chi-squared distributions for first-generation students showed that 62.1% of the total sample of first-generation students did not attain their original aspirations from 1990 by the year 2000. This result suggests two points: 1) first-generation students are not being supported for success adequately once they are in the college environment and/or 2) first-generation students are not receiving clear messages about the demands and expectations of higher education while in high school.

When used, small group intervention has a positive effect on the GPA of first-generation freshmen as evidenced by Folger, Carter, & Chase (2004), who used a pre-test/post-test control group design where one group of first-generation freshman college students participated in small group intervention weekly for 90 minutes. The series of sessions was called the Freshmen Empowerment Program (FEP). Each session involved discussing topics related to academics, college resources, adjustment, relationships, and other issues of concern to the students. They were also encouraged to connect with their professors and other members of the campus community. Although the FEP and control groups were not matched pairs, they were constructed to be equivalent in terms of original ACT scores. Independent t-tests were used to compare the fall semester GPA, spring semester GPA, and cumulative freshman GPA of the FEP and control groups. They found that there was a significant difference between the GPAs of the two groups and that the FEP program had a positive effect on the GPA of the first-generation freshmen who participated.

Other research suggests there is a need to begin transitional programs prior to entering the university that prepare the student for the expectations of college life (Kelly, Kendrick, Newgent, & Lucas, 2007). These programs should include study skills, time management skills, and

general coping skills. Authors suggest that these programs continue on the college level, providing the same activities for students and assisting in their cognitive development.

In regards to first-generation college students and their self-efficacy, Vuong, Brown-Welty, and Tracz (2010) conducted a study on first-generation college students to determine a) whether academic success as defined by GPA and persistence rates is a function of self-efficacy; b) whether there are differences in mean academic success and persistence rates between first-generation and second-and-beyond generation students; c) whether there are differences in self-efficacy between gender and ethnic groups; and d) whether there are differences in self-efficacy and student success (GPA and persistence rates), gender, ethnicity, generation status, and institution size of college sophomores.

A quantitative research design was employed using the College Self-Efficacy Inventory (CSEI) (Solberg et al., 1993) with five California State University System institutions, which were chosen based on the size of their campuses. The sample consisted of 441 first-generation college students and 730 second-and-beyond-generation sophomores. To study whether academic success was a function of self-efficacy, four regression analyses were run. The four regression models that were run on all students used previous term GPA, overall GPA, and persistence rates as the dependent variables. Hotelling T^2 was run to determine the differences in the means of previous term GPA, overall GPA, P current term, and P following term between first-and-second-and-beyond generation students. MANOVA was used to examine the effects of gender and ethnicity on the three self-efficacy subscales.

The multiple linear regression indicated that both GPA variables were functions of self-efficacy. There were significant differences in the academic success between first-generation and second-generation sophomore students. First-generation students had lower previous term GPAs

in comparison to the second-generation sophomore students. A significant difference was also found for academic persistence as measured by the likelihood of completing the current term. This aligns with Chickering's theory that students have autonomy to make choices, and students who make the right choices to persist in their educational pursuit are more likely to succeed academically (Evans, Forney, Guido-DiBrito, 1998). The results of this study show that the perception college sophomore students have about their capabilities influences their academic performance and their persistence to maintain a GPA that allows them to continue in their chosen program of study as well as to stay enrolled until graduation from the university. In terms of self-efficacy, the results did not find that first-generation sophomore students have different perceptions in their self-efficacy than do second-generation college sophomore students. Had the research been conducted using first-time freshmen as opposed to sophomores, it is likely that this finding may have been different, since other research shows that experiences and attainments can impact self-efficacy. (Bandura, 1982, 1993; Schunk, 1989; Gore, 2006).

Padgett, Johnson, Pascarella (2012) studied the following research questions: 1) what are the effects of first-generation status on the following first-year outcomes, 2) to what extent do differences in and exposure to good practices in undergraduate education mediate the effects of first-generation status on these outcomes, and 3) are the effects of good practices on the first-year outcomes conditional-that is, do the effects differ in magnitude for first-generation students versus non-first-generation students. A pretest and posttest on first-year students using the WNSLAE, which investigates the effects of liberal arts colleges on the cognitive and psychosocial outcomes associated with education, was conducted in Fall 2006 and Spring 2007. The sample included first-year, full-time undergraduates from 19 institutions in 11 different states throughout different regions of the U.S. The findings suggest that first-generation students

have lower levels of Positive Attitude Toward Literacy and psychosocial outcomes compared to their non-first-generation counterparts. Students whose parents had some college but did not earn a college degree were found to have higher scores in all significant cognitive and psychosocial outcomes compared to first-generation students, indicating that even minimal exposure to college can increase a parents value and understanding of college so that it is transmitted to their children. Overall, the implications of the study stress the importance of targeting first-generation students and building academic and social support networks for them on campus, particularly as the population of first-generation students continues to escalate on college campuses.

Postsecondary Transition Programs

Postsecondary transition programs were developed in an effort to assist first-time college students entering a new culture in order to make the transition a smooth one (Hunter, 2006). First-year students have increased chances of being successful in college if they are exposed to making progress toward academic competence, interpersonal relationships, identity development, health and wellness, civic responsibility, diversity, and career exploration (Upcraft, Gardner, Barefoot, & Associates, 2005). These areas of progress are introduced and taught to first-time college students through a number of initiatives referred to as postsecondary transition program models. These initiatives include new student orientation; first-year seminars; welcome week, rituals, and traditions; residence education; academic advising; learning communities; academic support centers; common reading programs; peer-assisted study; and undergraduate research (Hunter, 2006). For the purpose of this study, academic support and advising is referred to as the Developmental Academic postsecondary transition program model. Residence education and learning communities are referred to Residential Colleges. Welcome week, rituals,

and traditions kinds of programming are represented in First Year Intervention programs for the purpose of this study.

Self-Efficacy

Early Development & Studies. Albert Bandura (1977) developed the theory that people's beliefs about their own capabilities influence their future performance and behaviors, thus producing outcomes that self-fulfill their beliefs. Bandura coined the term *self-efficacy* to describe this mechanism in human agency (1982). Self-efficacy involves a general sense of believing in one's capability to take a course of action with an organized conglomerate of cognitive, social, and behavioral skills. The judgments that people make regarding how well they can execute a course of action makes up their *perceived self-efficacy* (Bandura, 1982). Perceived self-efficacy influences people's choices of activities, in some cases causing them to avoid certain activities because they do not believe that they possess the capability needed to manage them. When faced with challenges and difficulties, people who focus on doubts about their capabilities (weak self-efficacy) slacken their efforts while those who have a strong sense of self-efficacy put forth greater effort in order to overcome those challenges. "High perseverance usually produces high performance attainments."(Bandura, 1982, p. 123). Good performance is aided by a strong sense of self-efficacy to withstand failures along with uncertainty by spurring preparatory acquisition of knowledge and skills that a person already possesses (Bandura, 1982). Those who are not confident in their capabilities to cope with environmental demands tend to dwell on their personal deficiencies and imagine potential difficulties as more daunting than they really are (Lazarus & Launier, 1978; Meichenbaum, 1977; Sarason, 1975). Contrastingly, those who are more confident in their capabilities focus more on the demands of the situation and are spurred to place greater effort toward obstacles.

Experimental research has been conducted on determining the causal link between self-perceptions of efficacy and action (Bandura, Reese, & Adams, 1982). The treatments utilized in these studies involved phobic subjects. Differential levels of self-efficacy were induced and their coping behavior was measured. Enactive mastery of progressively more threatening activities was part of the treatment. After this type of treatment was employed, the results of most of these studies illustrated that increased levels of perceived self-efficacy gave rise to higher performance accomplishments. Perceived self-efficacy proved to be a better predictor of subsequent behavior than performance attainment because people are influenced more by their perceived self-efficacy than performance attainment in treatment, making perceived self-efficacy a better predictor (Bandura, 1982; Bandura & Adams, 1977; DiClemente, 1981). Notable increases in self-efficacy are registered for people as a result of experiences disconfirming their beliefs about what they fear and when they gain new skills that help them manage threatening activities (Bandura, 1982). Postsecondary transition programs provide those experiences, which Bandura describes as useful in increasing self-efficacy.

Although there are a number of personal experiences that can potentially enhance one's self-efficacy, the experiences of enactive attainments, vicarious experiences, and verbal persuasion (Bandura, 1982) are the most relevant to the current study on postsecondary transition programs and first-generation college students (Lent, Brown, & Hackett, 1994). Enactive attainments refer to a person's successes and, based on authentic mastery experiences, can be the most influential source of efficacy information. As Bandura (1982) hypothesized, enactive attainments have been found to be an influential source based on empirical support (Lent, Lopez, & Bieschke, 1991; Lent, Lopez, Brown, & Gore, 1996). Postsecondary transition programs bring about enactive attainments by creating mastery experiences/successes for students (i.e. passing

an exam as a result of a study skills workshop or tutoring session; mastering time management as a result of a time management workshop, etc.) Seeing others perform successfully is considered a vicarious experience, which can also raise self-efficacy in people when they determine that they too possess the capabilities to master similar activities. First-generation college students' involvement in a postsecondary transition program allows them to be a part of a community of peers who face similar challenges; therefore they are able to witness the success of peers, which can in turn enhance their perceived self-efficacy.

Research suggests that regardless of the method used to enhance it, the level of self-efficacy closely corresponds to behavior (Bandura, 1982; Lent, Brown, & Hackett, 1994). A higher level of self-efficacy in students results in greater performance accomplishments and gives way to their persistence in their efforts until they succeed. When measuring the degree of relationship between levels of self-efficacy and action, correlations can be computed using the self-efficacy scores and performance attainments.

Self-Efficacy and Academic Achievement. A study on self-efficacy and its affect on academic attainment, conducted by Zimmerman, Bandura, and Martinez-Pons (1992), is one of the most notable studies on this topic. The authors present a conceptual model of self-regulated motivation and academic learning which illustrates the tested causal paths of how perceived self-efficacy for academic achievement in turn influences their personal goals and grade achievement. In their study, they used a sample of 102 high school students from two different campuses that served students from lower-middle class neighborhoods. The sample of students, which consisted of Asian, Black, Hispanic, and White students in a social studies course, completed a questionnaire that included items from the Children's Multidimensional Self-Efficacy Scales for self-regulated learning and academic achievement, along with student and

parental grade goals. The self-regulated learning scale measured students' perceived ability to use a variety of self-regulated learning strategies. The academic achievement scale measured students' perceived ability to achieve in nine skill sets, including mathematics, algebra, science, biology, reading and writing language skills, computer use, foreign language proficiency, social studies, and English grammar. Student and parental grade goals were measured using question formats that examined the student's expected grade and the grade regarded as minimally satisfying.

Using path analysis procedures, the authors found that students' perceived self-efficacy for academic achievement and student goals accounted for 31% of the variance in the students' academic course attainment. After making this finding, the researchers concluded that there was still a major portion of the variance that went unexplained, concluding that social cognitive theory encompasses a number of other factors that can make significant contributions to students' academic attainment (Zimmerman, Bandura, & Martinez-Pons, 1992).

Bandura (1993) expanded on his work with Zimmerman & Martinez-Pons (1992) by further explaining the ways in which perceived self-efficacy is a primary exercise of control over people's level of functioning, influencing the way they feel, think, motivate themselves, and behave. A strong level of self-efficacy results in students setting high goals to challenge themselves and committing more time to achieving those goals. Accomplishing such goals not only requires the skills needed to do so, but the beliefs of self-efficacy to use those skills well. Self-efficacy thinking can make the difference between the accomplishments of two students who possess the same level of skill. Overcoming obstacles by remaining task-oriented is also dependent upon self-efficacy beliefs. Self-efficacy beliefs also affect students' motivation by the level of effort they put toward accomplishing goals and their resilience to failures. As Bandura

(1993) states “Student beliefs in their capabilities to master academic subjects predict their subsequent academic attainments.” Students’ academic development is affected by their self-efficacy to control their learning and master course subjects. Research shows that instructional social influences that include cognitive strategies models, goal settings, attributional feedback, positive incentives, and verbalizing task strategies (Bandura, 1993) can enhance a student’s level of self-efficacy (Schunk, 1989). Postsecondary transition programs and the services they provide to students may lend itself to enhancing participant’s self-efficacy, which will be investigated in this study.

In an effort to extend the research on self-efficacy and academic development, Bandura, Barbaranelli, Caprara, & Pastorelli (1996) conducted a study that included analyzing the paths of sociostructural, familial, peer, and personal factors that affect academic development. The study also included the emergence of parental and student’s self-efficacy beliefs and their influence on their sociocognitive development. Their subjects were 279 children ranging in age from 11 to 14 years old whose efficacy beliefs were investigated by using three scales that measured the children’s belief in their capabilities to master their coursework in different areas, their efficacy to control their learning environment, and their efficacy regarding participating in group activities. The results verified the diverse factors and their paths of influence by which efficacy beliefs contribute to academic attainment. The most interesting finding was that parents who had a high level of self-efficacy affected their children’s academic achievement by way of the academic aspirations they had for them. This finding implies that some first-generation students whose parents do not have high educational aspirations for their children could be adversely affected academically.

College Academic Self-Efficacy. Pajares' (1996) study on self-efficacy in academic settings examined the predictive and meditational role of self-efficacy in academic settings. Pajares (1996) examined a number of early studies on self-efficacy and then further examined self-efficacy's role in academics. He found that when included in path analyses or multiple regression models with other variables of self-belief (e.g., self-concept, anxiety, perceived usefulness, perceptions of self-regulation, and attributions), along with demographic variables like gender, race/ethnicity, socioeconomic status, academic background, and aptitude, self-efficacy is a strong predictor of academic outcomes and serves as a mediator for the influence of other factors that affect academic performance.

A goal-efficacy model, created by Latham & Locke (1991) intended to predict academic performance of students. Although it is not widely used in sociological studies, scholars believe it to be a more powerful model than other models that seek out to predict academic performance (Klomegah, 2007). After using the model in a study of 103 undergraduate students in an attempt to determine how well self-efficacy, self-set goals, assigned goals, and ability predict their academic performance, the results showed that self-efficacy was the strongest predictor of academic performance (Klomegah, 2007). This finding is in line with what other researchers like Bandura (1977) and Carroll & Garavalia (2004) have found, whose earlier studies suggested that despite people's abilities, their belief in themselves can lead to accomplishment (Klomegah, 2007). It also underscores the importance of taking into account students' psychological factors in understanding academic success and developing programs for freshmen college students (Rittman, 1999; Klomegah, 2007).

Relationships have been found between self-efficacy beliefs and purpose in life among college students using Tinto's (1975) model of student attrition, Frankls's (1985) construct of

purpose of life, and Bandura's (1977) theory of self-efficacy as the theoretical framework (DeWitz, Woolsey, & Walsh, 2009). Self-efficacy theory offers a way for college personnel to develop interventions for students that positively impact their behaviors, thus impacting their retention. Research also suggests that such programs be tested for influence on students' self-efficacy beliefs. This directly supports the need for intervention programs to be designed with self-efficacy theory in mind.

Gore (2006) completed two incremental validity studies to further examine college self-efficacy as a predictor of college outcomes. The purpose of these studies was to evaluate of the utility of using college self-efficacy measures to predict postsecondary academic success and persistence (Gore, 2006).

The measures that were used in the first study were the College Self-Efficacy Inventory (CSEI) (Solberg, et. al, 1993) and the Academic Self-Confidence (ASC) scale, which was taken from the Student Readiness Inventory (SRI). The study participants consisted of 629 first-year college students who were enrolled in a freshmen orientation course at a large public Midwestern university. Students completed the CSEI at the beginning and end of the fall semester. A small subset of participants (n=137) completed both the ASC measure and the CSEI. Along with the college self-efficacy scales, students' ACT composite scores (achievement) and their semester GPA's (college outcomes) were measured by using institutional records. Hierarchical linear regression was used to determine the degree to which ACT composite, CSEI, and ASC scores predict college GPA. Hierarchical logistic regression was used to determine the degree to which ACT composite and CSEI scores predict college retention. The findings suggest that ASC and CSEI were significant but weak predictors of college GPA, however, end-of-semester CSEI scores presented larger correlations to student GPA. CSEI scores taken at the beginning of the

semester failed to account for additional variance in GPA. Also, both ASC and CSEI end-of-semester scores together accounted for more of the variance in GPA. Out of the three CSEI subscales (Course, Social, and Roommate) course self-efficacy was the most consistent predictor of college GPA, which is not surprising since it is the closest measure for college self-efficacy.

The purpose of the second study was to determine if there was a relationship between academic self-confidence and college outcomes after the effects of past achievement (i.e. ACT composite score) were controlled. A stratified sample of 25 four-year universities was created who committed to two years of participation in the study. Overall, 7,956 incoming first-year students participated in the study that examined ACT scores and psychosocial factors, which were measured by the SRI. The same regression analyses were used for this study as were used in the first study. The results showed that when added to ACT composite scores, ASC presented a small increase in prediction of college performance, making a model containing ASC and ACT composite scores superior to one that included ACT scores alone.

The findings of these studies created noteworthy discussion that included the rationale that CSEI measures are best taken at the end of students' first semester rather than the beginning because acquiring college experience will change student's self-confidence (Gore, 2006). Based on previous studies, it is also suggested that although the "Course" subscale on the CSEI is related to student performance, the "Social" subscale is also useful because it is related to student retention (Gore, 2006). It is also suggested that since items on the CSEI are specific to behaviors of a college student, students' efficacy scores are unlikely to highly correlate with past measures of academic achievement. Implications for practice suggest that first-year experience programs can serve as a way to improve students' self-efficacy beliefs. In addition, measures like CSEI and ASC could be added to other dependent measures designed to determine exactly which

components of the first-year experience programs are most efficacious in preparing successful students.

Self-Efficacy and First-Generation College Students. Other studies have taken findings such as these to determine whether college self-efficacy can make a difference for low-income and first-generation college students and the challenges they face. Ramos-Sanchez and Nichols (2007) set out to find if the self-efficacy of first-generation college students mediates academic performance and their adjustment to college, along with generational status. After using the College Self-Efficacy Instrument (CSEI) (Solberg, et al., 1993), the researchers found that although self-efficacy significantly predicted a higher level of self-perceived college adjustment, self-efficacy does not mediate between generational status and GPA. Since this study used a sample of participants from a private liberal arts university, only 33.3% of the sample constituted first-generation college students and the other 66.1% were non-first-generation. The assumption is that a private university will naturally have less first-generation students enrolled based on factors such as higher admissions requirements and more expensive financial obligations that, based on the aforementioned research, make it difficult for first-generation college students to pursue a private-university college education. Had this study been conducted at a public institution, the sample of participants likely would have included more first-generation college students, making the study more plausible.

Majer (2009) conducted a longitudinal study examining self-efficacy for education and academic success of ethnically diverse first-generation students at an urban community college. It was hypothesized that levels of self-efficacy for education and sociodemographic characteristics would predict educational outcomes and that sociodemographic characteristics among first-generation students would moderate the relationship between self-efficacy for

education and educational outcomes. A convenience sample of first-generation students was selected from introductory psychology courses at a community college in Chicago, Illinois. Participants completed the Beliefs in Educational Success Test (BEST) in order to measure their self-efficacy for education. The Life Orientation Test (LOT-R) was also used to assess their tendency to expect favorable outcomes, termed optimism. Self-mastery, defined as a perception that reflects one's personal mastery or control over life outcomes, was measured using the Self-Mastery Scale. Each scale was administered at baseline at the beginning of the semester for Wave 1 and again in Wave 2 at the end of the first semester (4 months later). Linear multiple regression and binary logistic regression models were used to determine whether the hypotheses regarding self-efficacy for education and students' sociodemographic characteristics predicted three educational outcomes, which were students' GPA, attendance, and attrition.

The findings showed a significant positive relationship between levels of self-efficacy for education and cumulative GPA at the end of the academic year. This suggested that greater self-efficacy for education plays a major role in promoting education gains among diverse first-generation college students at an urban community college. This finding extends Gibbons & Shoffner's (2004) Social Cognitive Career Theory (SCCT) in that self-efficacy for education is an important cognitive resources for the development of diverse first-generation students. Although there were significant and positive relationships between self-efficacy for education on one hand and optimism and self-mastery on the other hand, self-efficacy for education alone predicted increased GPA, which supports the predictive validity of the BEST as a measure for self-efficacy for education. Based on the significant relationship between levels of self-efficacy for education at Waves 1 and 2, there was a moderate degree of test-retest reliability of the BEST measure, which suggests that there was little change in any possible influences that may have

impacted their efficacious expectations during the semester. This finding suggests that such a claim can only be verified through research that focuses on examining the impact of interventions on students' self-efficacy and their behaviors surrounding this internal factor. This call for such research directly speaks to this study in that it will examine the impact of an intervention program on the college self-efficacy of first-generation college students. In regards to implications for practice, the researchers suggested interventions developed that bear in mind fostering first-generation college students' self-efficacy for education in an effort to increase their academic success and using self-efficacy for education as an outcome measure for academic intervention for this particular population.

Although the population of community college students consists of many who are first-generation, it would have been helpful to conduct this study at a four-year university as well, possibly including a comparison group, to determine if institutional type influences students' self-efficacy and academic success.

Among the low-income, African-American college students at PWIs, research suggests that a relationship exists between resilience, self-efficacy, and academic success (Strayhorn, 2010). In these studies, resilience has been defined as "success in school settings despite personal vulnerability, adversities brought about by early and ongoing environmental conditions and experiences." (Wang & Gordon , 1994, p. 38, as cited in Strayhorn, 2010). The implications of such studies call for examining differences in demographic variables like age and gender. Vuong, Brown-Welty, and Tracz (2010) conducted a study that involved college sophomores at 5 of 23 California State University campuses. The purpose of the study was to determine whether academic success as defined by GPA and persistence rates is a function of self-efficacy, whether there are differences in mean academic success and persistence rates between first-generation

and second-and-beyond-generation students, whether there are differences in self-efficacy between gender and ethnic groups, and whether there are differences in self-efficacy depending on campus size (Vuong, Brown-Welty, & Tracz, 2010). After using the College Self-Efficacy Inventory (Solberg, et al., 1993) the results showed that the perception college sophomore students have about their capabilities (self-efficacy) influences their academic performance and their persistence to maintain a GPA that allows them to continue in their chosen program of study as well as to stay enrolled until graduation from the university. Although there are studies that suggest that ethnic minority students, many of whom are first-generation, have lower self-efficacy than non-minority students, this study did not support that conclusion and mentions that the socioeconomic factor is a confounding variable in a number of those studies (Vuong, Brown-Welty, & Tracz, 2010).

Theoretical Framework: Social Cognitive Career Theory

In addition to the research questions, the major theory of self-efficacy and academic performance— Lent, Brown, & Hackett's (1994) Social Cognitive Career Theory (SCCT), will guide this study as a theoretical foundation.

The foundation upon which self-efficacy was built is Social Cognitive Theory, which asserts that when a student believes that positive outcomes will be the product of their actions, they are motivated to persevere (Bandura, et al., 2001). Lent, Brown, & Hackett (1994) developed the Social Cognitive Career Theory (SCCT), which is deeply set in Bandura's (1997) Social Cognitive Theory. The SCCT framework was developed as a way to utilize the tenets of Social Cognitive Theory, specifically self-efficacy, outcome expectations, and goals, in order to better understand the career development process (Lent, Brown, & Hackett, 1994). As the name of the theory may imply, SCCT is not narrowly applied to only career development specifically.

The rationale is that academic components of career development, which include making academic and career choices as well as performance and persistence in education pursuits, are also included in this framework (Lent, Brown, & Hackett, 1994).

Attempting to use a cognitive constructivist approach adheres to the idea that people not only respond to their environment in a reactive manner, but are proactive in shaping and influencing their environment (Lent, Brown, & Hackett, 1994). There are three interlocking models within SCCT—career interest development, career choice, and performance. The first model, *career interest development,* posits that direct and vicarious learning experiences influence beliefs regarding self-efficacy and outcome expectation. Self-efficacy and outcome expectations combine and together, are a determinant in occupational interests.

The second career framework, *career choice,* proposes that a feedback loop between a chosen goal derived from career interests, actions that implement the choice (e.g. deciding on a particular major), and performance attainments (e.g. course failures, admissions acceptance) influences vocational behavior and predicts an individual's career path. These factors work together as a predictor of a student's eventual career path.

The final model, which is the most applicable to this study, is *performance*, which includes levels of accomplishments (e.g. course grades) and persistence (e.g. not changing majors). The performance model explains that the reciprocal interaction of a student's ability, self-efficacy, outcome expectations, and performance goals determines their career functioning.

Expanding on the model of performance, SCCT reiterates the notion that self-efficacy has a strong influence on determining behavior (Lent, Brown, & Hackett, 1994). "In situations where the quality of performance guarantees particular outcomes, self-efficacy is seen as the

predominant causal factor and as a partial determinant of outcome expectations." (Lent, Brown, & Hackett, 1994, p. 84).

This concept applies to academic performance since academic outcomes in college are predicated based on the quality of a student's performance (i.e., students study hard in order to earn good grades).

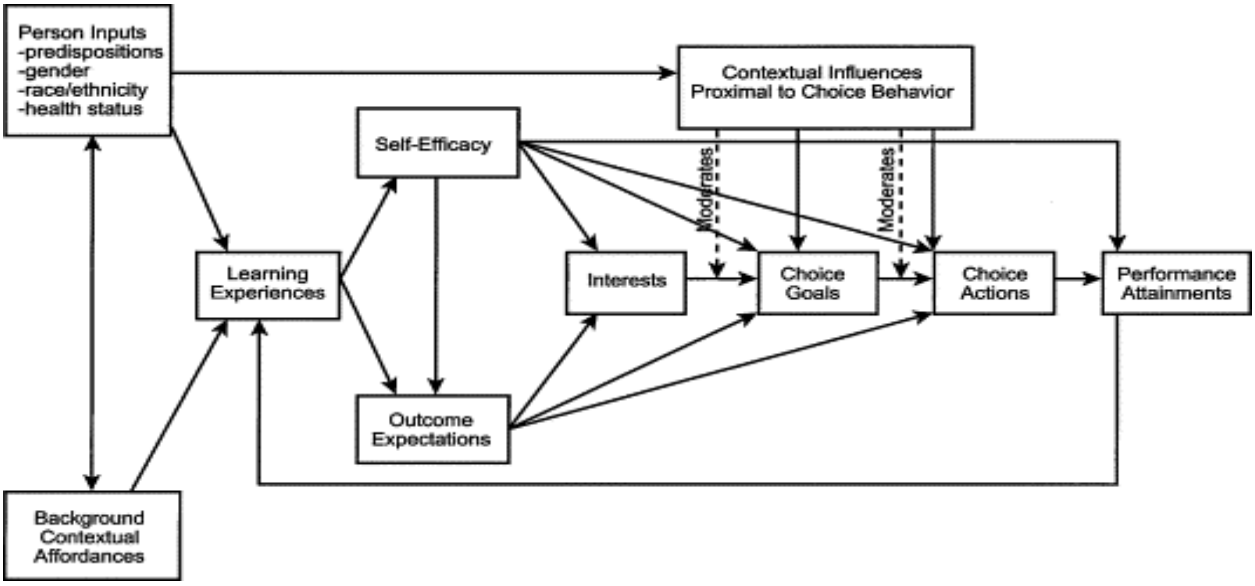

Figure 1. Model of person, contextual, and experiential factors affecting career-related choice behavior. Lent, Brown, & Hackett, 1994.

Figure 1 above illustrates the causal sequence of a number of factors that affect students' career choice behavior. It is important to note that the sequence begins with "person inputs" which include demographic factors as well as internal factors, encompassed by the term "predisposition." Generational status could be seen as a predisposition in this model and included in the person inputs which act as the base for this causal sequence of career development and attainment.

After reviewing the literature on self-efficacy as it pertains to academic performance, the

SCCT is the best fit to guide this study because it captures the role that self-efficacy plays in academic performance. Although the SCCT does focus on the long-term goals of career development, academic performance is an important factor along the career development path. As aforementioned, one of the objectives of this study is to examine how postsecondary transition programs impact participants' college self-efficacy based on demographic factors. The demographic factors are the person inputs that fit into the SCCT model. Fitting into the learning experiences part of this model, the primary purpose for postsecondary transition programs is creating a smooth transition to college for first-time students, thus increasing their chances of being retained and graduating from college.

Conclusion

The literature illustrates that first-generation college students require support networks that will assist them in maneuvering through college campuses despite the many challenges they face in comparison to their non-first-generation peers. As suggested by Padgett, Johnson, & Pascarella (2012), this population is projected to increase in number on college campuses across the U.S., making postsecondary transition programs that are tailored to first-generation college students necessary. The caveat is ensuring that such programs and the services they provide are designed to positively influence psychosocial factors such as self-efficacy. Bandura's extensive research (1977, 1982, 1993, 1997) in addition to his research with other scholars (Bandura, Reese, & Adams, 1982; Zimmerman, Bandura, Martinez-Pons, 1992) found that higher self-efficacy results in higher academic achievement and performance. The general theme that arises is that since college self-efficacy can make a difference in the success of first-generation college students, it is important to determine what programs affect college self-efficacy. In addition to focusing on first-generation colleges, the researcher also explored impact of participation in

various postsecondary transition program models on the college self-efficacy based on demographic variables (i.e. male/female/, low ACT/high ACT, low income/middle income/ high income) to determine if they to a mediating factor in students' college self-efficacy. Student college self-efficacy beliefs based on the measured subscales and how they differ among postsecondary transition program participation and demographic variables are discussed.

CHAPTER III: METHODOLOGY

Introduction

The literature in Chapter 2 highlights several special concerns of first-generation college students and the postsecondary transition programs that serve them. The literature has shown that first-generation college students face a number of challenges, which in many cases hinders their progression toward a college degree. Hence, postsecondary transition programs have been developed to address these challenges and increase the college retention and graduation rates of at-risk students, which include first-generation college students. Although a number of studies have examined the effects of postsecondary transition programs on first-generation college student retention, research on the possible indirect factors that could be affected by these programs is limited.

Based on empirical studies (Owen & Froman, 1988; Multon, Brown, & Lent, 1991; Zimmerman, Bandura, & Martinez-Pons, 1992; Bandura, 1993; Bandura et.al, 1996; Pajares, 1996; Torres & Solberg, 2001; Davenport & Lane, 2006; Gore, 2006) scholars posit that college self-efficacy impacts students' academic performance. The current literature has not adequately encompassed the constructs of college self-efficacy into the concern for first-generation college students, as evidenced by the lack of research on how the postsecondary transition programs that serve them impact these constructs. This chapter explains the methodology that was be used in conducting the present study, including research design, intended sample and participating institutions, instruments, data collection methods and strategies, and analysis.

Rationale for Using a Mixed Methods Research Design

In gathering information concerning whether or not the various postsecondary transition program models positively impact the college self-efficacy beliefs of first-generation college

students, this study was designed to conduct inquiry into those students' perceptions, motivations, and experiences involving their college self-efficacy. This research study used a mixed methods approach using both quantitative and qualitative data (Johnson & Christensen, 2008). By collecting, analyzing, and "mixing" both quantitative and qualitative data within this study, the researcher was able to understand the research problem more completely (Johnson & Christensen, 2008).

Quantitative research relies on the collection of numerical data (Johnson & Christensen, 2008). By following a scientific method, a confirmatory or "top-down" approach was used by the quantitative researcher who tested hypotheses and theory with data (Johnson & Christensen, 2008). The researcher identifies relationships among isolated variables and uses quantitative research to describe or explain trends (i.e. tendency) associated with those relationships (Creswell, 2002). Tendency consists of the magnitude or frequency of relationships. The extent to which two variables are related is also often investigated by researchers. The researcher chooses instruments to measure these variables that will yield highly reliable and valid scores.

Alternatively, qualitative research relies on the collection of non-numerical data, such as words, pictures, observations, etc. (Johnson & Christensen, 2008). A "bottom-up" or exploratory approach is used with the researcher generating new hypotheses and grounded theory from collected data (Johnson & Christensen, 2008).

Mixed methods design combines distinct strategies from both quantitative and qualitative methods for use within a single project (Tashakkori & Teddlie, 2003). When studying phenomena these strategies enhance the scope of the study by qualitative inquiry, giving meaning behind the numbers that are derived from quantitative inquiry (Tashakkori & Teddlie, 2003). With the simultaneous or sequential use of individual participant interviews along with a

measurement instrument, the design of a study is bolstered and is considered triangulated (Tashakkori & Teddlie, 2003). Triangulation occurs when the researcher uses different methods to study the same phenomena in order in increase credibility and trustworthiness of the research finding (Johnson & Christensen, 2008). By using a measurement instrument as well as participant interviews in this study, the research findings of this study will be more credible.

Research Design

The research design of this study was guided by the following research questions:

RQ 1 (a): What is the difference in levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models?

> **Hypothesis**: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models.

RQ 1 (b): What is the difference in levels of college self-efficacy between *first-generation* and *non-first-generation* students who receive services from *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program models?

> **Hypothesis**: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy between first-generation and non-first-generation students who receive services from

Developmental Academic, Residential College, or *First Year Intervention* postsecondary transition program models.

RQ 2: What is the difference in levels of college self-efficacy between *male* and *female* first-generation college students who are receiving services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy between male and female students who are receiving services from *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program models.

RQ 3: What is the difference in levels of college self-efficacy between students who are receiving services from *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program models based on *ACT score range*?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy between students who are receiving services from *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program models based on *ACT score range*.

RQ 4: What is the difference in levels of college self-efficacy between students who are receiving services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models based on Parent Income Level?

Hypothesis: As measured by the College Self-Efficacy Inventory (CSEI), the College Academic Self-Efficacy Scale (CASES), and the Motivated Strategies for Learning Questionnaire (MSLQ) there will be a difference in levels of college self-efficacy between college students who are receiving services from *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program models based on parent income level.

Quantitative Research Design. A sequential explanatory mixed method design consisted of a quantitative phase administering posttest online student surveys which was followed by a qualitative phase during which post-intervention, semi-structured, individual interviews were conducted. The rationale for mixing is that neither the quantitative survey nor the qualitative interview data by themselves are sufficient enough to provide both breadth and depth of the topic, such as the complex issue of determining the impact of postsecondary transition program models on college self-efficacy. It is believed that conducting interviews after quantitative data is collected provide meaning behind the numbers and offer a better explanation of the phenomena that is being studied.

The specific mixed methods design that was used in this study was the sequential explanatory mixed methods design. This method of inquiry involved collecting and analyzing quantitative data in the first phase of research and conducting a second phase of research involving the collection of qualitative data (Creswell, 2009). Quantitative data is typically given more weight and informs the qualitative data collection phase, which is secondary (Creswell, 2009). The qualitative data that was collected served as a follow-up to the quantitative results.

A quasi-experimental design was used in this study. The researcher in this study did not have control over which group participants were assigned to (Johnson & Christensen, 2008).

Since this design is used for studies that cannot control the assignment of subjects to groups in the sampling strategy, there are a number of potential biases that exist that could threaten the validity of this study (i.e. selection bias, selection-maturation, selection instrumentation, selection regression, and selection history) (Johnson & Christensen, 2008).

In order to ensure that the results are not biased, Burke Johnson & Larry Christensen (2008) suggest two design components that must be considered when using the non-equivalent comparison group design. The first is the importance of group assignment and the second is not allowing participants to self-select into groups. Biases in this study were limited since the researcher did not select who participated in each postsecondary transition program.

Qualitative Research Design. Grounded theory design was used for the qualitative phase of this study. Creswell (2002) defines grounded theory as a process theory that "explains an educational process of events, activities, actions, and interactions that occur over time." (p.439). This study sought to examine if college self-efficacy development and/or enhancement that first-generation college students experience is impaired as a result of participating in a postsecondary transition program. The grounded theory design was the most appropriate for this study because it allowed for emerging categories for constant comparison as well as more control of the sampling of groups in order to maximize the variation in the data (Creswell, 2009).

Setting. The study site was a large, public research intensive University in the South. The University is a flagship state university, that supports land, sea, and space grant research and has an enrollment of 28, 985 as of Fall 2012. The incoming first-time freshmen class enrollment of Fall 2012 was 5,725. The institution offers bachelors, masters, and doctoral degrees. Table 1 illustrates that the University is a predominantly white university (PWI) with a racial breakdown of the student population.

Table 1. Racial breakdown of the entire student population at the University in Fall 2011

Ethnicity	White	African-American	Asian	Hispanic
The University	21,568	2,835	840	1,149

For the purpose of this study, the population that was studied consisted of first-time freshmen students. In Fall 2011, the University's incoming degree-seeking freshmen class consisted of 1, 890 reported first-generation students, with 3, 347 students of this freshmen class non-first-generation. Table 2 provides information regarding the academic background and gender composition of the first-generation student in the Fall 2011 incoming freshmen class. Table 2. First-generation student demographics

University Fall 2011 Incoming Degree-Seeking Freshmen First-Generation Students	
Average ACT Score	25
Average GPA	3.35
Percentage of Women	54.8%
Percentage of Men	45.2%

Sampling Strategy

Quantitative Sampling Strategy. The sampling strategy consisted of random sampling of first-time freshmen students at the University drawn from the Fall 2012 incoming, first-time freshmen class, continuing to Spring 2013. The students' University email address served as the unique identifier when keeping track of students and their responses.

All participants were first-time entering freshmen beginning their second semester at the University. African American, White, Hispanic, Asian, and students of all other ethnic backgrounds represented in the Fall 2012 incoming, first-time freshmen class were included. Participants consisted of both first-generation and non-first-generation college students.

Qualitative Sampling Strategy. From the random samples, the researcher used purposeful sampling for the qualitative phase of the data collection portion of the study. Using the criterion purposeful sampling technique, participants were selected based on criteria that the researcher was interested in studying (Edmonson & Irby, 2008). In the present study, the researcher was most interested in gaining more insight into the relationship between postsecondary transition program participation and first-generation college student's college self-efficacy. Therefore, the qualitative sample was chosen from the *postsecondary transition program participant* experimental group based on the participants' scores on the CSEI, CASES, and MSLQ pretests.

According to Teddlie & Yu (2007), this is an example of purposive sampling, which is used when the researcher sets out to gain greater depth of information from a smaller, carefully selected number of cases. Yielding the most information about how postsecondary transition programs impact college self-efficacy beliefs was garnered by picking a small number of survey respondents to interview. In-depth individual interviews were conducted with each participant in the qualitative phase of this study.

Since the goal of the study was to capture the impact that postsecondary transition programs have on students' college self-efficacy, survey respondents who were participants in one postsecondary transition program were recruited for an interview. An email inviting students to participate in an individual interview was sent out to each participant who responded to the survey and indicated that they were first-generation and participated in one of the postsecondary

transition programs. The email provided details regarding the purpose of the interview and offered students the opportunity to win a $25 VISA gift card.

The participants' consent included the researcher's permission to audio-record the interview. The researcher asked the participants to choose the date, time, and location of the interview. The participants were sent reminders via email about their interview date and time. Each interview was be face-to-face and took place in an office on the University campus. The interviews were transcribed and analyzed.

Data Collection

Quantitative Data Collection. The experimental group was first-time freshmen students at the University who indicated that they participated in a *Developmental Academic, Residential College*, or *First Year Intervention* postsecondary transition program. The dependent variables, *Social Efficacy, Course Efficacy, College Academic Self-efficacy, Intrinsic Goal Orientation, Peer Learning, Critical Thinking, and Time & Study Management* were measured for each group at the beginning of the Spring 2013 semester, which was after participation in their respective postsecondary transition programs. "Developmental Academic", "Residential Colleges", and "First Year Intervention" program model served as the treatment conditions. Operationally, college self-efficacy dependent variables (i.e. *Social Efficacy, Course Efficacy, College Academic Self-Efficacy, Intrinsic Goal Orientation, Peer Learning, Critical Thinking, and Time & Study Management)* were measured by the College Self-Efficacy Inventory (Solberg et al., 1993), the College Academic Self-Efficacy Scale (Owen & Froman, 1988), and the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991).

Independent Variables. The treatment for this study consisted of a self-report of participation in a *Developmental Academic* program, *Residential College*, and *First Year*

Intervention postsecondary transition programs. The Developmental Academic program was a workshop designed to provide participants with tools needed for students to excel academically in their courses. The program was a series of workshops where students were taught such strategies by a University Academic Success facilitator.

The Residential College program provided a living-learning environment, fostering the outcomes of critical thinking ability, communication skills, and sense of community and social responsibility among student participants. The environment provided by the Residential Colleges provided inside and outside classroom experiences for students to achieve these outcomes.

The First Year Intervention program was a four-day, three-night program designed to prepare first year students for the transition to the University. Students learned the key components that would aid them their transition to the University (e.g. academic success, college readiness, history & traditions, involvement, leadership development, relationship building, student services, etc.).

Independent treatment variables consisted of self-reported participation in:

1) *Developmental Academic*

2) Residential Colleges

3) First Year Intervention

Each of these program models was treated as a separate independent variable.

Independent Variables: Demographic/Backgrounds. The additional independent variables associated with participants Demographic Information were:

1) *Generational status=First-generation/Non-first-generation*
2) *Gender=Male/Female*
3) *ACT score=High ACT/Low ACT*

4) *Parent Income Range=High Income/Middle Income/Low Income*

Dependent Variable. One of the dependent variables, "college self-efficacy" was defined as students' perception of whether or not they were capable of achieving their educational goals by performing necessary tasks (Vuong, Brown-Welty, & Tracz, 2010). Operationally, college self-efficacy was as measured by the College Self-Efficacy Inventory (Solberg et al. 1993), the College Academic Self-Efficacy Scale (Owen & Froman, 1988), and the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, McKeachie, 1991).

Measurement Instruments

College Self-Efficacy Inventory (CSEI). One of the instruments used in this study to measure college self-efficacy was the College Self-Efficacy Inventory (CSEI) (Solberg et al., 1993). The CSEI consists of 20 questions across three subscales: Course Efficacy, Social Efficacy, and Roommate Efficacy. Questions regarding students' experiences and confidence levels with research, writing papers, and taking notes were included in the Course Efficacy subscale. The Social Efficacy subscale addressed experiences and confidence levels asking questions in class and talking to professors. The Roommate Efficacy scale asked participants about their level of confidence when dividing up chores and sharing living areas with their roommates. For the purpose of this study, only the Course Efficacy and Social Efficacy subscales in the instrument were used, excluding the Roommate Efficacy scale. The CSEI subscales have been empirically studied. It has been found that the scores on the Course Efficacy subscale are related to students' performance and the Social Efficacy subscale is related to students' persistence, while the Roommate Efficacy subscale is not related to either of these academic constructs (Gore, 2006).

Since this study was focused on examining the impact of postsecondary transition program models on the college self-efficacy of first-generation college students with the intent of informing retention efforts, the Roommate Efficacy scale was not used. Students' experiences in their courses and their social encounters in an academic setting were of most importance to this study. The items were organized using a 10-point Likert-type scale ranging from (0)=*totally unconfident* and (10)=*totally confident.* Some examples of items on the Course Efficacy subscale are "*Write a course paper*" and "*Do well on your exams*". Examples of items on the Social Efficacy scale are "*Join a student organization"* and *Make new friends at college*."

Calculating the mean of all items completed on the instrument determined participants' scores. A high self-efficacy was indicated by a high score on the CSEI, whereas a low self-efficacy was indicated by a low score on the instrument. A reliability coefficient of .93 was established for the CSEI (Solberg et al., 1993). After conducting a psychometric study of this instrument, Gore, Leuwerke, and Turley (2006) found that the CSEI is a useful tool when studying academic outcomes of students.

College Academic Self-Efficacy Scale (CASES). The other instrument used in this study to measure college self-efficacy was the College College self-efficacy Scale (CASES) (Owen & Froman, 1988). The instrument consisted of 33 items that address typical academic behaviors of college students asking the question "*How much confidence do you have about doing each of the behaviors listed below?"*. Some examples of the items include "*Participating in class discussion", "Tutoring another student", "Getting good grades"*, and *"Challenging a professor's opinion in class."* The items were organized using a 5-point Likert-type scale ranging from (A)-*Quite a Lot* to (E)=*Very Little*.

The items were not hierarchically arranged but were randomly mixed based on area and factors. An alpha coefficient of .90 and a test-retest reliability of .85 was reported with an 8-week interval (Owen & Froman, 1988). After performing an exploratory principal factor analysis (Owen & Froman, 1988), three orthogonal factors emerged from the response items that best explained the structure of the instrument.: 1) Overt, Social Situations (e.g. "*Participating in class discussion*"), 2) Cognitive Operations (e.g. *Listening carefully during a lecture on a difficult topic*), and 3) Technical Skills (e.g. "*Using a computer*"). After combining the responses from three samples of college students, these factors accounted for 78% of the variance.

Motivated Strategies for Learning Questionnaire (MSLQ). The final instrument used in this study to measure college self-efficacy was the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, McKeachie, 1991). The instrument consisted of 81 items divided into two categories of *motivation* and *learning strategies*. The motivation section consisted of 31 items that included items regarding students' values, beliefs, and goals for a course, their skills to succeed, and test anxiety. There were six subscales in the motivation section: 1) intrinsic goal orientation (α=.74) extrinsic goal orientation (α=.62), 3) task value (α=.90), 4) control of learning beliefs (α=.68), 5) self-efficacy for learning and performance (α=.93), and 6) test anxiety (α=.80) (Pintrich, Smith, Garcia, & McKeachie, 1991).

The learning strategies sections consisted of 31 items regarding students' cognitive and metacognitive strategies, as well as 19 items regarding student management of different resources (Pintrich, et al. 1991, p. 5). There were nine subscales in the learning strategies section: 1) rehearsal (α=.69), 2) elaboration (α=.75), 3) organization (α=.64), 4) critical thinking (α=.80), 5) metacognitive self-regulation (α=.79), 6) time/study environmental management (α=.76), 7)

effort regulation (α=.69), 8) peer learning (α=.76), and 9), help seeking (α=.52) (Pintrich, Smith, Garcia, & McKeachie, 1991).

The subscales used in this study were 1) intrinsic goal orientation 2) critical thinking 3) time/study environment management and 4) peer learning. The items were organized on a 7-point Likert scale, ranging from 1=*not at all true of me* to 7=*very true of me*. The scores for the individual subscales are computed by calculating the mean of the items within each subscale.

The CSEI, CASES, and the MSLQ along with a demographic questionnaire including. gender, ethnicity, ACT score, and high school GPA was distributed to students via email in the form of an online questionnaire. Responses to the questionnaire were collected using the Survey Monkey website. The contact email inviting students to participate in the survey consisted of a link to the survey upon which the respondents provided their email address as the unique identifier. The email address of each of the respondents was collected by the investigator who placed the email addresses in a drawing for a $50 VISA gift card and the winner was contacted via email.

Qualitative Data Collection. An interview protocol that corresponded to the research questions for this study guided the semi-structured individual interviews. The researcher gained consent from participants who chose to participate in the individual interview. Each interview was facilitated by the researcher who used an interview protocol. See Appendix E for a list of guiding questions.

The experimental group was first-time freshmen students at the University who participated in a postsecondary transition program. The dependent variable, college self-efficacy, was measured which was measured at the very beginning of the fall semester. Participation in *Developmental Academic*, *Residential College*, and *First Year Intervention* served as the

treatment condition, which was gathered by a self-report from the survey respondents. The dependent variable "college self-efficacy" was defined as students' perception of whether or not they are capable of achieving their educational goals by performing necessary tasks (Vuong, Brown-Welty, & Tracz, 2010). Operationally, college self-efficacy was as measured by the College Self-Efficacy Inventory (Solberg et al., 1993), the College Academic Self-Efficacy Scale (Owen & Froman, 1988), and the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991).

The CSEI, CASES, and the MSLQ along with a demographic questionnaire including gender, ethnicity, ACT score, and high school GPA) was included in the online survey. Responses to the questionnaire were collected using the website Survey Monkey. The contact email inviting students to participate in the survey consisted of a link to the survey upon which respondents provided their email address as the unique identifier. The IP addresses were also collected as a unique identifier. The email address of each of the respondents were collected by the researcher who placed respondent email addresses in a drawing for a $50 Visa gift card and the winner was be contacted via email.

Quantitative Data Analysis

The difference in levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models was examined in this study**.** ANOVA was the chosen method of analysis used to determine whether or not there were significant differences in the means scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program model. A one-way analysis of variance was conducted to explore the impact

of *Post-Secondary Transition Program* on levels of subscales of college self-efficacy between each program model.

This study also explored difference in levels of college self-efficacy between *first-generation* and *non-first-generation students* how receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models. The mean scores for each of the college self-efficacy sub-scales between first-generation and non-first-generation students in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of first-generation students among each of the postsecondary transition programs was fairly even (Developmental Academic=37.7%, Residential Colleges= 33.8%, and First Year Intervention=28.5%). In the non-first-generation group, the number of non-first-generation students in the Residential Colleges group far exceeded that of the Developmental Academic and First Year Intervention groups (Residential Colleges=54.1%, Developmental Academic=22.5%, First Year Intervention=23.4%).

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within first-generation and non-first-generation participants. Using this technique allows the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted for the first-generation and non-first-generation participant groups across the postsecondary transition program.

The difference in levels of college self-efficacy between *male* and *female* students who receive services from *Developmental Academic, Residential College, or First Year Intervention*

postsecondary transition program models was examined. The mean scores for each of the college self-efficacy sub-scales between male and female students in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of female students among the post-secondary transition programs consisted of Residential Colleges= 43.2%, Developmental Academic= 28.1%, and First Year Intervention=28.6%. The distribution of male student among post-secondary transition program consisted of Residential Colleges=59.6%, Developmental Academic=23.4%, and First Year Intervention= 17.0%. Overall the number of both female and male participants in Residential Colleges exceeded the number of female and male students in Developmental Academic and First Year Intervention programs.

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within male and female participant groups. The one-way ANOVA was conducted within the male and female participant groups across the postsecondary transition program groups.

The difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *ACT score range* was examined in this study. Respondents were asked to indicate the ACT range that applied to them (i.e. 31-36, 26-30, 21-25, 16-20). The distribution of these ranges weighed heavily in the 31-36 and 26-30 ranges. In order to maintain more even distribution, the range options were collapsed into *High ACT score range* (i.e. 26-36) and *Low ACT score range* (i.e. 16-25). As seen is Table X the mean scores for each of the college self-efficacy sub-scales between students in high and low ACT score ranges in the Developmental Academic, Residential Colleges, and First Year Intervention groups were

compared. The distribution of students in high ACT score range (i.e. 36-26) among the post-secondary transition programs consisted of Residential Colleges= 55.3%, Developmental Academic= 20.7%, and First Year Intervention=24.0%. The distribution of students in low ACT score range (i.e. 25-16) among post-secondary transition program consisted of Residential Colleges=35.7%, Developmental Academic=37.8%, and First Year Intervention= 26.5%. Overall the number of students in high ACT score range exceeded the number of student in low ACT score range.

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within low ACT and high ACT participant groups. The one-way ANOVA was conducted within the high ACT and low ACT participant groups across the postsecondary transition program groups.

This study investigated the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *Parent Income Level*. Respondents were asked to indicate the Parent Income Level that applied to them (i.e. $100,000 or more, $75,000-$100,000, $50,000-$75,000, $25,000-$50,000, $0-$25,000). The distribution of these ranges weighed heavily in the $100,000 or more and $75,000-$100,000 ranges. In order to maintain more even distribution, the range options were collapsed into *High Parent Household Income* (i.e. $100,000 or more), *Middle Parent Household Income* (i.e. $50,000-$100,000), and *Low Parent Household Income* (i.e. $0-$50,000). As seen is Table X the mean scores for each of the college self-efficacy sub-scales between students among high, middle, and low income ranges in the Developmental Academic, Residential Colleges, and First Year

Intervention groups were compared. The distribution of students in high parent household income range (i.e. $100,000 or more) among the post-secondary transition programs consisted of Residential Colleges= 57.0%, Developmental Academic= 20.0%, and First Year Intervention=23.0%. The distribution of students in middle parent household income range (i.e. $50,000-$100,000) among post-secondary transition program consisted of Residential Colleges=52.1%, Developmental Academic=23.9%, and First Year Intervention= 23.9%. The distribution of students in low parent household income range (i.e. $0-$50,000) among post-secondary transition program consisted of Residential Colleges=30.4%, Developmental Academic=40.6%, and First Year Intervention= 29.0%.

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within low income, middle income, and high income participant groups. The one-way ANOVA was conducted within the low income, middle income, and high income participant groups across the postsecondary transition program groups. Table 3 provides details regarding the seven subscales that are included in this study.

Qualitative Content Analysis of Transcript Data

The qualitative data collected from the pre-intervention and post-intervention interviews was analyzed using content analysis, which is the process of identifying themes and categories. The data was transcribed and ATLAS.ti qualitative analysis software was used to organize the data and facilitate the process of analysis (Creswell, 2002).

Table 3. College Self-Efficacy Subscale Details

College Self-Efficacy Subscales	***Definition of Subscale***	***Example Items***	***Number of Items***	***Reference***
Social Efficacy	one's confidence in their interpersonal and social adjustment	*"Join a student organization"* *"Make new friends at college"*	4	Solberg, O'Brien, Villarreal, & Davis, 1993
Course Efficacy	one's confidence in their course performance	*"Write a course paper"* *"Do well in your exams?*	14	Solberg, O'Brien, Villarreal, & Davis, 1993
Academic Self-Efficacy	one's confidence in their personal ability to complete academic tasks	*"Participating in class discussions"* *"Tutoring another student"* *"Getting good grades"*	33	Owen & Froman, 1988
Intrinsic Goal Orientation	student's perception of themselves participating in a task for real interest and to increase knowledge in the subject matter	*"The most satisfying thing for me in my courses is trying to understand the content as thoroughly as possible"*	4	Garcia, McKeachie, Pintrich, & Smith, 1991
Critical Thinking	applying learned knowledge to new situations	*"When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence"*	5	Garcia & Pintrich, 1992
Time & Study Environment Management	choosing environments conducive to learning and effectively managing one's study time	*"I make good use of my study time for my courses"* *"I have a regular place set aside for my studying"* *"I attend class regularly"*	8	McKeachie, Pintrich, Lin, & Smith, 1991; Pintrich et al., 1991
Peer Learning	involves using peers to collaboratively understand course material or information to be learned	"*I try to work with other students from my classes to complete the course assignments*" *"When studying for my courses, I often try to explain the material to a classmate or a friend"*	3	Jones, Alexander, & Estell, 2010

Table 3 continued

The research questions in the study were answered by discovering supporting data for the corresponding quantitative data from the transcribed students' interview responses.

Conclusion

Retention and graduation of first-generation college students is a national challenge for post-secondary institutions (Engle & Tinto, 2008). This has spurred the development of postsecondary transition programs, whose primary goal is to increase the retention and graduation rates of all first-time entering university freshmen, often targeting at-risk groups like first-generation students. This study presented a sequential explanatory mixed method approach to examine the relationship between different postsecondary transition program models and the college self-efficacy and of first-time freshmen college students on the demographic variables of male/female/, low ACT/high ACT, and low income/middle income/ high income to determine if they too had a mediating factor in students' college self-efficacy. Student college self-efficacy beliefs based on the measured subscales and how they differ among postsecondary transition program participation and demographic variables are discussed. Using a quasi-experimental design and a grounded theory design, the primary goal of this research was to gain further insight into this impact both quantitatively and qualitatively. The following chapter provides details about the results of this study**.**

CHAPTER IV: RESULTS

Introduction

The purpose of this study was to investigate the impact of participation in postsecondary transition programs on the college self-efficacy of first-time freshmen, first generation students. To complete this research study, a mixed methods approach was utilized (Tashakkori & Teddlie, 2003). The sequential explanatory mixed methods design (Creswell, 2009) was implemented by first administering online surveys to first-time freshmen students whose first enrolled semester at the University was Fall 2012 and who re-enrolled in Spring 2013. The administration of surveys was followed by individual interviews with first-generation students who participated in a postsecondary transition program. The individual interviews were conducted to enhance the quantitative survey results. The interview transcriptions were then coded for themes that were derived from the college self-efficacy subscales in the quantitative phase of this study. Grounded theory was used in the analysis of the qualitative data, based on Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 1994) as the theoretical framework. The content of this chapter includes the study setting, participant demographics, data collection and analysis procedures, concluding with the quantitative and qualitative findings of the study organized by the research questions, as shown in Table 4.

Table 4. Research Questions and Methods

Research Questions	Method
RQ1 (a): What is the difference in levels of academic self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models?	**RQ1 (a)**: Quantitative Findings **RQ1 (a**) : Applicable *Supporting Qualitative Findings* for *Significant Quantitative Findings*
RQ1 (b): What is the difference in levels of college self-efficacy between *first-generation* and *non-first-generation students* how receive services from *Developmental Academic, Residential College, or First*	**RQ1 (b)**: Quantitative Findings **RQ1 (b)**: Applicable *Supporting Qualitative Findings* for *Significant*

(Table 4 continued)

Research Questions	Method
Year Intervention postsecondary transition program models?	*Quantitative Findings*
RQ2: What is the difference in levels of college self-efficacy between *male* and *female* students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models?	**RQ2**: Quantitative Findings **RQ2**: Applicable *Supporting Qualitative Findings* for *Significant Quantitative Findings*
RQ3: What is the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *ACT score range*?	**RQ3**: Quantitative Findings **RQ3**: Applicable *Supporting Qualitative Findings* for *Significant Quantitative Findings*
RQ4: What is the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *Parent Income Level*?	**RQ4**: Quantitative Findings **RQ4**: Applicable *Supporting Qualitative Findings* for *Significant Quantitative Findings*

Postsecondary Transition Program Participant Demographics: Quantitative Phase

The postsecondary transition program participant sample used for the quantitative phase of this study consisted of 286 participants, 67% of which were female (n=195), while 33% were male (n=95). Participation consisted of 77 students who indicated that they were first-generation students. Table 5 shows the frequencies and percentages for postsecondary transition program model participation as indicated on the survey.

Table 5. Participants by Postsecondary Transition Program Model

Postsecondary Transition Models	n	Percent
Developmental Academic	76	26.6
Residential Colleges	139	48.6
First Year Intervention	71	24.8
Total	286	100.0

Table 6 includes the breakdown of first-generation participants.

Table 6. Participants by Postsecondary Transition Program Model & First-Generation Status

Postsecondary Transition Model	First Generation n	Non-First Generation n	% of First Generation within Groups
Developmental Academic	29	47	38.2
Residential Colleges	26	113	18.7
First Year Intervention	22	49	31.0
Total	77	209	36.8 (overall sample)

Participants indicated their University Cumulative GPA range at the time of the study, which took place after their first semester of enrollment at the University. Of the 286 participants, 38% reported a GPA range of 3.5-4.0, 27% reported a GPA range of 3.0-3.49, and 20% of the overall sample reported a University Cumulative GPA of less than 2.49. Figure 1 illustrates the GPA breakdown in the overall sample.

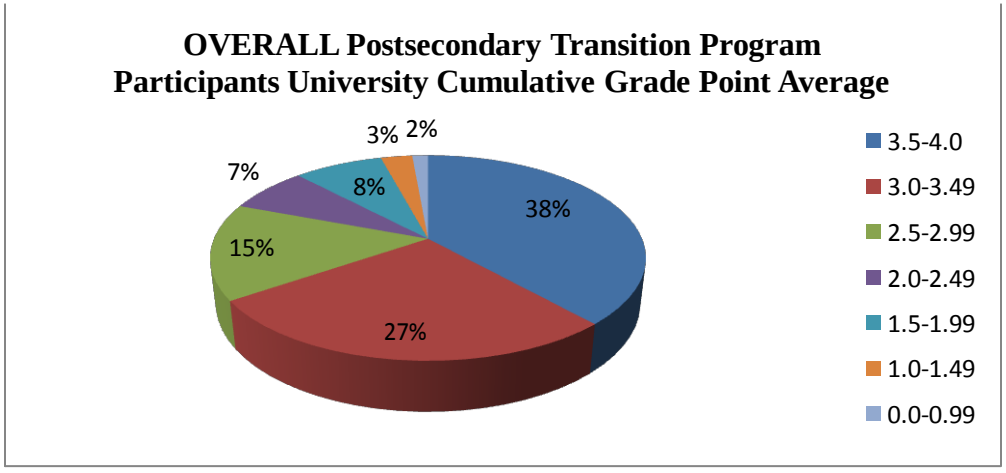

Figure 1: Overall Sample Participants' Reported Cumulative University Grade Point Averages

Developmental Academic Program Treatment Sample Demographics. The Developmental Academic program participant sample consisted of 76 participants, 71.1% of them were female (n=54), while 28.9% were male (n=22). Participation consisted of 29 students

who indicated that they were first-generation. Of the 76 Developmental Academic participants, 61.8% were White (non-Hispanic). The largest percentage of students of color that participated in this survey were Black at 18.4%. Table 7 shows the Developmental Academic participant sample by ethnic background.

Table 7. Developmental Academic Participant Sample Ethnic Background Breakdown

Ethnic Background	Sample Frequency	Percent
Asian	6	7.9
American Indian/Alaskan Native	2	2.6
Black (non-Hispanic)	14	18.4
Hispanic/Latino	2	2.6
White (non-Hispanic)	47	61.8
Other (biracial)	5	6.6
Total	**76**	**100.0**

Residential College Program Treatment Sample Demographics. The Residential College program participant sample consisted of 139 participants, 59.7% of them were women (n=83), while 40.3% were men (n=56). Participation consisted of 26 students who indicated that they were first-generation. Of the 139 Residential College participants 81.3% were White (non-Hispanic). The largest percentage of students of color that participated in this survey were Black at 7.2%. Table 8 shows the Residential College participant sample by ethnic background.

Table 8. Residential College Participant Sample Ethnic Background Breakdown

Ethnic Background	Sample Frequency	Percent
Asian	5	3.6
American Indian/Alaskan Native	0	
Black (non-Hispanic)	10	7.2
Hispanic/Latino	5	3.6
White (non-Hispanic)	113	81.3
Other (biracial)	6	4.3

Table 8 (continued)

Ethnic Background	Sample Frequency	Percent
Total	**139**	**100.0**

First Year Intervention Program Treatment Sample Demographics. The First year Intervention program participant sample consisted of 71 participants, 77.5% of them were women (n=55), while 22.5% were men (n=16). Participation consisted of 22 students who indicated that they were first-generation. Of the 71 participants 83.1% were White (non- Hispanic). The largest percentage of students of color that participated in this survey were Black at 9.9%. Table 9 shows the First Year Intervention participant sample by ethnic background. Table 9. First Year Intervention Participant Sample Ethnic Background Breakdown

Ethnic Background	Sample Frequency	Percentage
Asian	1	1.4
American Indian/Alaskan Native	0	
Black (non-Hispanic)	7	9.9
Hispanic/Latino	1	1.4
White (non-Hispanic)	59	83.1
Other (biracial)	3	4.2
Total	**71**	**100.0**

Postsecondary Transition Program Participant Demographics: Qualitative Phase

The postsecondary transition program participant sample used for the qualitative phase of this study consisted of 5 participants, 80% of them were female (n=4), and 20% were male (n=1). All participants in the qualitative phase of this study also participated in the preliminary quantitative phase by completing the online survey, with each indicating that they were first- generation students. Purposeful sampling was used in the qualitative phase of this study by setting criterion for participation. The qualitative sample criterion consisted of 1) student indicated that he or she was a

first-generation student on the online survey and 2) the sample had to include participant representation from either the Developmental Academic, Residential College, and First-Year Intervention postsecondary transition program models exclusively. Table 10 includes demographic information of each individual interview participant. Pseudonyms were assigned to each interview participant to ensure confidentiality.

Table 10. Qualitative Sample: Individual Participant Demographics

Participant	Postsecondary Transition Program	Gender	Ethnic Background	Reported ACT Score Range	Reported LSU GPA Range
Casey Milano	Residential College	Female	Caucasian	31-36	3.5-4.0
Ezra Larson	First Year Intervention	Male	Caucasian	26-30	3.5-4.0
Janet Terrell	Developmental Academic	Female	African American	16-20	1.0-1.49
Jewel Banks	Residential College	Female	African American	26-30	3.5-4.0
Rami Slater	Residential College	Female	Asian	31-36	3.5-4.0

Quantitative Data Collection

Data collection for the quantitative phase of this study consisted of an online survey administered through an online survey tool, Survey Monkey. An email invitation was sent to all first-time freshmen students who enrolled in Fall 2012. The invitation indicated that completing the voluntary online survey would qualify them for a drawing of a $50 VISA gift card. The online survey included a consent form for which a "yes" response was required for survey completion. The online survey was open for completion for approximately one month, opening on January 21, 2013 and closing on February18, 2013. Figure 2 illustrates the response frequency during the quantitative data collection period.

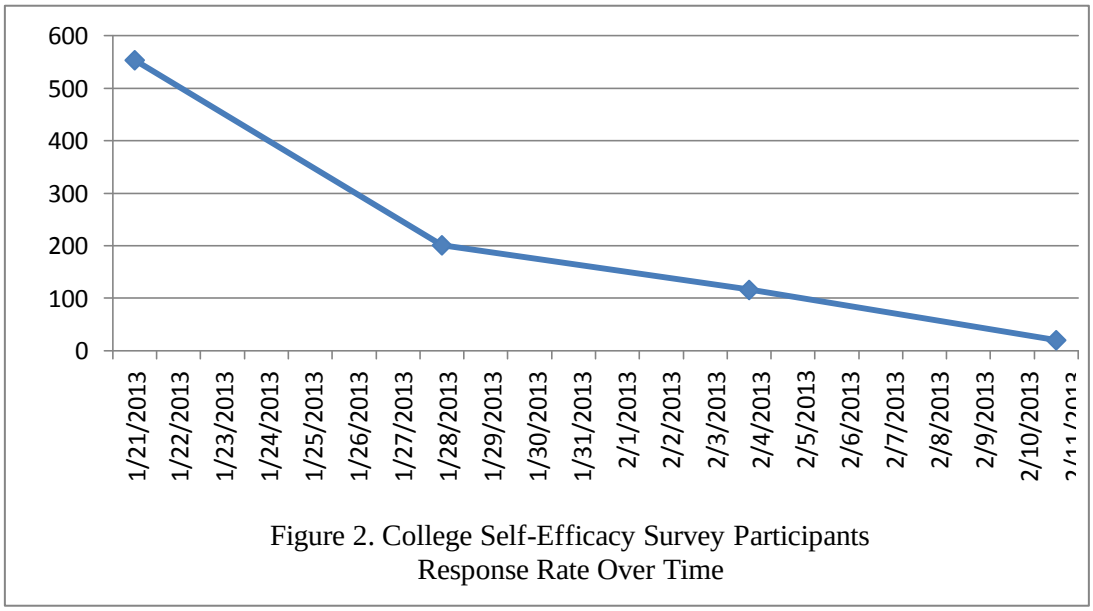

Figure 2. College Self-Efficacy Survey Participants Response Rate Over Time

The quantitative data was recorded and stored using the Survey Monkey online survey tool. Once the online survey was closed, the survey responses were downloaded into an Excel file, which was later uploaded into IBM SPSS Statistical Software program for data analysis. All data analysis was completed by the researcher.

Qualitative Data Collection

Data collection for the qualitative phase of this study consisted of individual interviews with five of the online survey respondents. These respondents were chosen based on the sample criterion (i.e. first-generation and a participant in either the Developmental Academic, Residential College, or First Year Experience programs exclusively). All survey respondents who met these criteria were sent an email invitation to participate in an individual interview for the chance to win a $25 Visa gift card. Of these participants, five students responded with interest in participating. Interviews were scheduled via email with each participant. Each interview was conducted in an office on the university's campus. Each interviewee signed an approved consent form (Appendix E) and was made aware that the interview would be recorded

using an audio recorder. Table 11 shows the five interview participants, interview dates, times, and duration.

Table 11. Qualitative Interview Dates, Times, and Duration.

Interviewee	Interview Date	Time	Duration (min:sec)
Casey Milano	March 12, 2013	12:30pm	29:44
Ezra Larson	March 12, 2013	2:00pm	24:36
Janet Terrell	March 11, 2013	11:30am	47:10
Jewel Banks	March 14, 2013	4:00pm	42:29
Rami Slater	March 12, 2013	12:30pm	56:48

Each interview was transcribed and coded for themes derived from the college self-efficacy subscales used in the quantitative phase on this study.

Quantitative Data Analysis

In preparation for data analysis, reliability analysis was completed for each college self-efficacy subscale included in the survey instrument by determining the Cronbach alpha for each scale. As shown in Table 12, the majority of the subscale internal consistency for this sample was preferable, with three subscales deriving an acceptable Cronbach coefficient (i.e. Social Efficacy, Intrinsic Goal Orientation, and Time & Study Environment).

Table 12. Reliability Analysis

College self-efficacy Subscales	***Number of Items on each Subscale***	***Reliability (Cronbach's alpha)***
Social Efficacy	4	.708
Course Efficacy	14	.900
Academic Self-Efficacy	33	.923
Intrinsic Goal Orientation	4	.786
Extrinsic Goal Orientation	4	.807
Critical Thinking	5	.906
Time & Study Environment	8	.796
Peer Learning	3	.806

ANOVA was the method of analysis used to determine whether or not there were significant differences in the means scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program model. A one-way analysis of variance was conducted to explore the impact of *Post-Secondary Transition Program* on levels of subscales of college self-efficacy between each program model.

Qualitative Data Analysis

The individual interview transcriptions were analyzed by the researcher using Grounded Theory with Social Cognitive Career Theory (SCCT) (Lent, Brown, & Hackett, 1994) as the theoretical framework. As mentioned in Chapter 2, the SCCT framework was developed as a way to utilize the tenets of Social Cognitive Theory, specifically self-efficacy, in order to better understand the career development process (Lent, Brown, & Hackett, 1994). The name of the theory may imply that it is only applied to career development theory. However, SCCT consists of academic components of career development, which include performance and persistence in education pursuits (Lent, Brown, & Hackett, 1994).

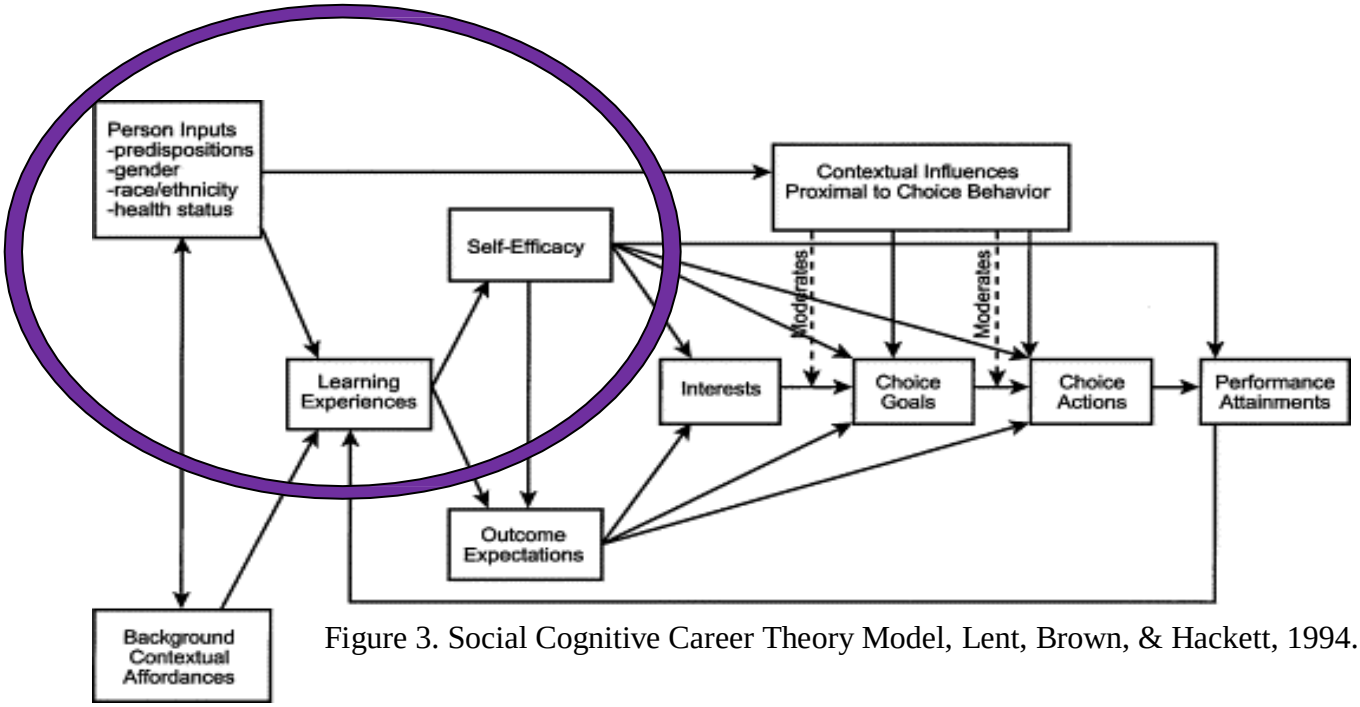

Figure 3. Social Cognitive Career Theory Model, Lent, Brown, & Hackett, 1994.

Of the three interlocking models that exist within SCCT, the first model, *career interest development*, was the basis for analysis in the qualitative phase of this study (circled in Figure X). *Career Interest Development* posits that direct and vicarious learning experiences influence beliefs regarding self-efficacy and outcome expectations (Lent, Brown, & Hackett, 1994). The model also considers "person inputs" (Lent, Brown, & Hackett, 1994) that influence learning experiences (i.e. predispositions, gender). The purpose of the study was to determine how the learning experiences associated with different postsecondary transition program models impact the college self-efficacy beliefs of first-generation college students. This study also considered how person inputs such as first-generation status, gender, ACT scores, and parent income levels influenced college self-efficacy. After reviewing the literature, the *career interest development* model of the SCCT was the best fit for the grounded theory qualitative phase of this study as illustrated in Figure 3.

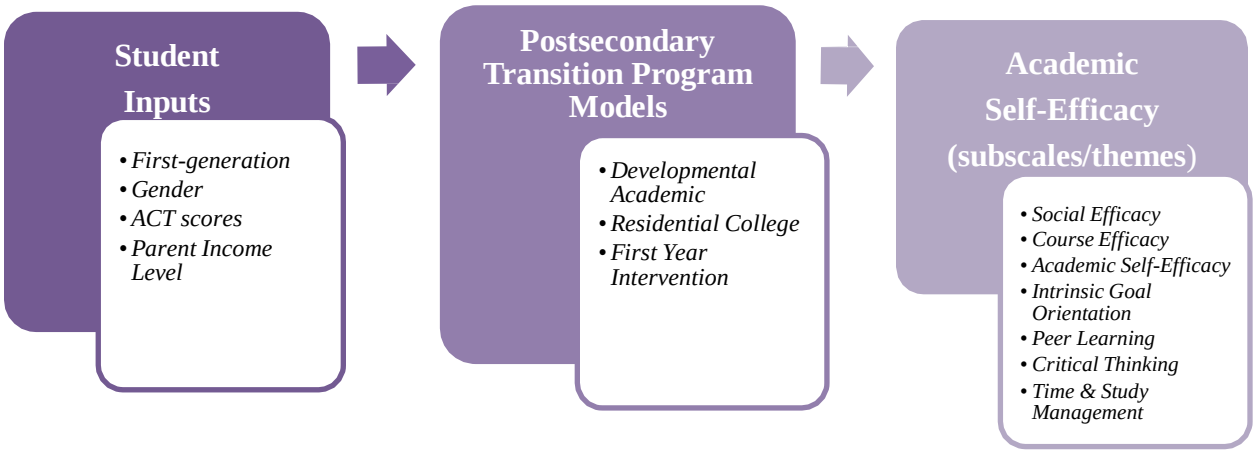

Figure 4: SCCT Theoretical Framework as it applied to the Qualitative Analysis

The qualitative analysis in this study was based on the SCCT theoretical framework as illustrated in Figure 4. The student inputs (i.e. *first-generation, gender, ACT scores, and parent income level*) in addition to the postsecondary transition program that the student participated in (i.e., *Developmental Academic, Residential College, First-Year Intervention*) were analyzed to determine their impact on the students' college self-efficacy beliefs. In an effort to maintain continuity between the quantitative and qualitative phases of this study, the subscales used to measure college self-efficacy (i.e., *Social Efficacy, Course Efficacy, College self-efficacy, Intrinsic Goal Orientation, Peer Learning, Critical Thinking, and Time & Study Management*) in the qualitative phase served as the themes explored in the individual student interviews .

Interviews with five first-generation postsecondary transition program participants were conducted in an effort to gain further insight into the college self-efficacy beliefs of first-generation college students as a result of their participation in a postsecondary transition program. Each interview was facilitated by the researcher who used an interview protocol which consisting of guiding questions. See Appendix A for the list of guiding questions used in the interview protocol.

Profiles of Qualitative Phase Participants. The researcher gathered the quantitative and qualitative data on each student interviewee for the purpose of creating individual profiles that included data components (i.e., Student Inputs, Postsecondary Transition Program model, and College self-efficacy) that are included in the chosen theoretical framework, SCCT (Lent, Brown, & Hackett, 1994). The quotes in each interviewee profile were chosen on the basis of the comments that captured the essence of each students' disposition as it related to his or her experiences as a first-time freshman at the University and being a first-generation college student.

Janet Terrell. Janet Terrell is an African American female, who at the time of this study, was beginning her second semester as a student at the University. On her survey, Janet reported that she had a high school cumulative GPA of 1.00-1.49, a cumulative ACT score of 16-20, a University GPA of 1.00-1.49, parent annual household income of $25,000-$50,000, and that neither of her parents earned a four-year degree, making her a first-generation college student. She also reported that she had participated in the University IMPACT program, which is classified as a *Developmental Academic* postsecondary transition program for the purpose of this study. Janet's reported levels of college self-efficacy on the subscales were as follows: *Social Efficacy*: generally unconfident; *Course Efficac*y: somewhat confident to totally unconfident; *College Academic Self-Efficacy*: low confidence; *Intrinsic Goal Orientation*: average to high confidence; *Extrinsic Goal Orientation*: high confidence; *Critical Thinking*: low; *Time & Study Environment*: mid-high; *Peer Learning*: low.

My interview with Janet began with introductions where she disclosed that the primary reason she chose to attend the University was to get out of the house and that she was impressed with the prestige attached to the University name. "..if you show somebody you go to [the University], you get...it's a big deal!", Janet said. She went on to describe her experience when she first arrived as a student at [the University] by saying, "I was like 'Oh, my God, I think I made the wrong decision.' It was like so big, so big. It's like, I don't know, it's just so intimidating." Janet added, "And I don't see many of my color here so I'm like, 'Do we survive?' This comment from Janet encompasses how proud and confident she was about attending the University. However, when she arrived on campus her confidence decreased as a result of being intimidated by the size of the university and lack of interaction with students from the same ethnic background. The intimidation factor and not seeing many of her peers whom she

identifies with led to her recanting on her initial feelings about attending the University. Janet's account of this experience confirms her fairly low scores on the college self-efficacy subscales.

Casey Milano. Casey Milano is a White female whom at the time of this study was beginning her second semester as a University student. On her survey, Casey reported having a cumulative high school GPA of 3.5-4.0, ACT score of 31-36, LSU GPA, of 3.5-4.0, parent annual household income of $50,000 to $75,000, and being a first-generation college student. Casey also reported residing in a Residential College at the University. Casey's reported levels of college self-efficacy on the subscales were as follows: *Social Efficacy*: totally confident; *Course Efficacy*: totally and very confident; *College Academic Self-Efficacy*: "quite a lot" of confidence; *Intrinsic Goal Orientation*: high; *Extrinsic Goal Orientation*: high confidence; *Critical Thinking*: high; *Time & Study Environment*: high; *Peer Learning*: high.

When asked about her decision to attend the University, Casey responded:

> It's never really been am I going to college or not. It was always what degree I am going to get." Casey continued, "Right now I am looking at either [a] PhD or an MD. Undergraduate was never a question….I did really well in high school. It was kind of a natural production. I chose [the University] because of the research base, and because of TOPS…

Casey further explained the role of her parents in pursuing an undergraduate degree. She explained:

> My parents never really gave me the, even though they didn't go to college, they never gave me the idea that college was questionable. So it was kind of like…it was more of who is going to pay for it and that was the whole thing was, 'You're gonna get scholarships…

For Casey, it was evident she has always been very driven and knew that she would go to college, despite the fact that her parents did not go to college. Casey set the bar high for herself, going in to the University with an exceptional test score and GPA. Her decision to attend the University in particular was based on research opportunities and scholarships, which would make her path to a Ph.D. or M.D. a seamless one. Casey's account of her high school experience,

thought process regarding attending college, and educational goals were consistent with her high scores on the college self-efficacy subscales.

Jewel Banks. Jewel Banks is an African American female who at the time of this study was beginning her second semester as a University student. On her survey, Jewel reported having a cumulative high school GPA of 3.5-4.0, ACT score of 26-30, University GPA of 3.5-4.0, parent annual household income of $25,000-$50,000, and being a first-generation college student. Jewel also reported residing in a Residential College at the University. Jewel's reported levels of college self-efficacy on the subscales were as follows: *Social Efficacy*: totally confident; *Course Efficacy*: mostly totally and very confident, lower confidence in using library and asking a question in class; *College Academic Self-Efficacy*: average to somewhat high; *Intrinsic Goal Orientation*: average; *Extrinsic Goal Orientation*: high confidence; *Critical Thinking*: low; *Time & Study Environment*: high; *Peer Learning*: average.

At the beginning of the interview, Jewel made it evident that she possesses a strong support system. She said:

> My family has always encouraged a high education, for me to do whatever or to chase any dreams that I have. So basically I have always wanted to come to college. I am [a] first generation college student. My parents did not attend college, but they have been so supportive and so helpful. They have always encouraged me and I have always been self-motivated, very confident, very determined, and whatever I set my mind to I try my best to accomplish it.

Jewel displayed a great deal of confidence during her interview, and the discussion about her being self-motivated and her family encouraging her to get a college degree is in line with her high *Social Efficacy* and somewhat high *College Academic Self-Efficacy*.

Rami Slater. Rami Slater is an Asian female who at the time of this study was beginning her second semester as a University student. On her survey, Rami reported having a cumulative high school GPA of 3.5-4.0, ACT score of 31-36, University GPA, of 3.5-4.0, parent annual

household income of $75,000-$100,000, and being a first-generation college student. Rami also reported residing in a Residential College at the University. Rami's reported levels of college self-efficacy on the subscales were as follows: *Social Efficacy*: average/low confidence; *Course Efficacy*: average/high; *College Academic Self-Efficacy*: high; *Intrinsic Goal Orientation*: average/high; *Extrinsic Goal Orientation*: high; *Critical Thinking*: average high; *Time & Study Environment*: average; *Peer Learning*: low/average.

Coming from a small town in Oregon, Rami explained who she ended up choosing the University to pursue her college degree. She said:

> I actually had no intention of ever coming to [the University]. I didn't want to come anywhere near the South or a public institution….So what happened was the SEC was in Oregon talking to high school counselors about their mission programs and stuff like that.

By way of a recruiter, Rami was able to secure a full ride at the University. She discussed her changed perspective about the University by saying, "I love it here. I'm so glad I came down here. The people here, they are so nice."

When asked what has been the most valuable from the science residential college, Rami responded:

> Probably the fact that we (fellow students) have a bunch of classes together so it is sort of taking baby steps from high school. All of our classes were with the same people, so now you have some other people you know and you know if say you missed a day of lecture you can go over to them and say, 'Hey I didn't get the notes can you send them to me?,' or I didn't get this concept, did you understand it, can you help me with it or do you want to work on homework with me? Also my roommates are both science majors who are taking the same sort of classes as me so we all have biology, chemistry together so that's nice.

Interestingly, Rami's explanation about how she had several classes with the same group of people and shared notes with them was an example of peer learning. However, she scored in the low/average range on the *Peer Learning* subscale. Rami did score high in on the *College*

Academic Self-Efficacy subscale, which is consistent with her comments about how much she loves the University.

Ezra Larson. Ezra Larson is a Caucasian male who at the time of this study was beginning his second semester as a University student. On his survey, Ezra reported having a cumulative high school GPA of 3.5-4.0, ACT score of 26-30, University GPA, of 3.5-4.0, parent annual household income of $50,000-$75,000, and being a first-generation college student. Ezra also reported being a participant in the STRIPES program at the University, which is classified as a *First Year Intervention* postsecondary transition program for the purpose of this study. Ezra's reported levels of college self-efficacy on the subscales were as follows: *Social Efficacy*: average confident; *Course Efficacy*: average confident; *College Academic Self-Efficacy*: confident' low scores in professor/class discussions; *Intrinsic Goal Orientation*: average/high; *Extrinsic Goal Orientation*: high; *Critical Thinking*: high; *Time & Study Environment*: average high; *Peer Learning*: high.

When asked about his decision to attend college and his choice to attend the University, Ezra responded:

> Well, I mean I just wanted to get a good education so I could go and have a good job. My plans are to eventually go to medical school…Originally I wanted to go to Tulane; the money didn't work out quite right so I settled for [the University]….I love it here…It was kind of like my second choice and that's why I ended up here but it's been great so far.

Regarding his transition to the University, Ezra mentioned:

> I think STRIPES is actually a really good thing because I got to meet a lot of people. I was coming from Baton Rouge and a lot of my friends were coming here and I already had that aspect but I was able to branch out and meet a lot of new people. And actually my STRIPES leader is the reason why I joined my fraternity. I was looking at them but then having him was really cool. I got to branch out and meet him…whole social aspect of Greek life and stuff. I wasn't completely sure if I wanted to join a fraternity or not and so that helped that.

Ezra's discussion about the First Year Intervention program allowing him to branch out and meet new people is consistent with his average confident score on the *Social Efficacy* subscale and the confident *College Academic Self-Efficacy* subscale score.

These interviewee profiles provide background details which will contribute to further understanding of the applicable qualitative findings that follow the significant quantitative findings.

Research Findings

The research findings for this mixed methods study are organized by the study research questions (indicated as RQ). Following each research question is an explanation of the chosen method of data analysis, the quantitative findings which include applicable descriptive and ANOVA tables, and interpretation of all findings, including significant findings. The research findings section is congruent with the mixed methods nature of this study by including supporting qualitative data for each significant quantitative finding for which supportive qualitative data was present.

College Self-Efficacy, Between Postsecondary Transition Programs: Quantitative Findings. This study examines the difference in levels of college self-efficacy between students who receive services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models. As seen in Table 13, when comparing the mean scores for each of the college self-efficacy sub-scales between the Developmental Academic, Residential Colleges, and First Year Intervention groups, it should be noted that the number of Residential Colleges participants far exceeded that of the Developmental Academic and First Year Intervention groups (Residential Colleges=48.6%, Developmental Academic=26.6%, and First Year Intervention=24.8%).

Table 13. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub- Scales Based on Postsecondary Transition Program Model

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Sub-scale	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.90	1.63	76	6.08	1.39	139	5.90	1.39	71
Course Efficacy	6.34	1.11	76	6.68	.94	139	6.55	1.10	71
*Academic Self-Efficacy	3.58	.65	76	3.80	.48	139	3.71	.49	71
Intrinsic Goal Orientation	4.86	1.21	76	5.13	1.01	139	4.95	.96	71
*Peer Learning	3.82	1.53	76	4.35	1.59	139	3.99	1.38	71
Critical Thinking	4.57	1.25	76	4.77	1.18	139	4.49	1.24	71
Time & Study Management	4.95	.98	76	5.27	.87	139	5.17	.96	71

ANOVA was the chosen method of analysis used to determine whether or not there were significant differences in the means scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program model. A one-way analysis of variance was conducted to explore the impact of *Post-Secondary Transition Program* on levels of subscales of college self-efficacy between each program model, as shown in Table 14.

Table 14. ANOVA Source Table: Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.309	1.154	.544	.581
Within groups	283	600.236	2.121		

Table 14 (continued)

Total	285	602.545			
Course Efficacy		*SS*	*MS*	*F*	*p*
Between groups	2	5.532	2.766	2.612	.075
Within groups	283	299.648	1.059		
Total	285	305.179			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.454	1.227	4.316	.014*
Within groups	283	80.447	.284		
Total	285	82.901			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	4.109	2.100	1.886	.154
Within groups	283	314.980	1.113		
Total	285	319.179			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	15.669	7.835	3.371	.036*
Within groups	283	657.812	2.324		
Total	285	673.481			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	4.044	2.022	1.371	.255
Within groups	283	417.288	1.475		
Total	285	421.332			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	4.802	2.401	2.807	.062
Within groups	283	242.060	.855		
Total	285	246.862			

There was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores for the three postsecondary transition program groups: $F (2, 285) = 4.316$, $p = .014$. *Peer Learning* scores for the three postsecondary transition program groups were also statistically significant: $F (2, 285) = 3.371$ $p = .036$. Despite reaching statistical significance, the actual difference in mean scores *College Academic Self-Efficacy* and *Peer Learning* between the groups was moderate. The effect size for *College Academic Self-Efficacy* was calculated using Cohen's d, which was .39. Cohen's d for *Peer Learning* was.34.

Post-hoc comparisons using the Tukey HSD test indicated that the mean *College Academic Self-Efficacy* score for the Developmental Academic group (M= 3.58, SD= .65) was significantly different from the Residential Colleges group (M= 3.80, SD= .48. Post-hoc comparisons using the Tukey HSD test indicated that the mean *Peer Learning* score for the Developmental Academic group (M= 3.82, SD= 1.53) was significantly different from the Residential Colleges group (M= 4.35, SD= 1.59).

College Self-Efficacy, Between Postsecondary Transition Programs: Qualitative Findings. Quantitative analysis showed that Students who participated in the *Residential College* program have higher levels of *College Academic Self-Efficacy* than students who participated in *Developmental Academic* program participants.

Janet, one of the interviewees who reportedly participated in a Developmental Academic postsecondary transition program, scored in the low range on the *College Academic Self-Efficacy* subscale on the online survey. During her interview, Janet responded to the question designed to inquire about *College Academic Self Efficacy*, "How would you rate your

ability to earn your degree at this institution on a rating scale from zero to eight with eight being the highest?" by saying:

> So it's more like an in between four because I'm still trying to, at this point, because mid- term I know what my grades are and I know what I'm trying to get so I'm more at a four or five…heading to a six…Cause I wouldn't say I haven't personally done that cause my study habits aren't as well as they are supposed to be, but I'm working to get there.

Janet's responses to the *College Academic Self-Efficacy* question were consistent with her scores on the *College Academic Self-Efficacy* subscales, indicating that at the time of this study, she had low confidence in her ability to earn her degree from the University.

Casey, one of the interviewees who reportedly participated in a Residential College postsecondary transition program, scored in the high range on the *College Academic Self-Efficacy* subscale on the online survey. During her interview, Casey responded to the question designed to inquire about *College Academic Self-Efficacy*, "How would you rate your ability to earn your degree at this institution on a rating scale from zero to eight with eight being the highest?", by saying:

> Probably a seven. I know I can do it; I really do like my major. I like bio-chemistry. If I was in something like physics or bio-engineering, I know that would be like 6, but I'm confident because I love what I am doing and it has been doable so far.

Based on the responses gathered from the individual interviews with Janet, a Developmental Academic program participant, and Casey, a Residential College participant, conducted in the qualitative phase of this study, the data gathered supports the quantitative findings that participants in a Residential College have higher levels of *College Academic Self-Efficacy* than *Developmental Academic* postsecondary transition program participants.

The quantitative analysis in this study showed that students who participated in the *Residential College* program had higher levels of *Peer Learning* than *First-generation* students

who participated in *Developmental Academic* program participants.

Janet, one of the participants who reportedly participated in a Developmental Academic postsecondary transition program, scored in the low range on the *Peer Learning* subscales on the online survey. In her response to the questions designed to inquire about *Peer Learning*, "Do you have a group of peers that you hang out with or talk about school with?", she said, "No, I don't have a social thing going on at school. I don't really talk to nobody." Similarly, Janet's response to the Peer Learning question was consistent with her score on the *Peer Learning* subscales, indicating that at the time of this study, she did not have a peer group with whom she connected with or learned from.

Casey, one of the participants who reportedly participated in a Residential College postsecondary transition program, scored in the high range on the *Peer Learning* subscale on the online survey. Casey responded to the question inquiring about her experience in the Residential College by saying, "The Honors Residential College is amazing. I am staying there next semester. It is the exact type of environment you want to be in. I can study…Everybody else will be doing the same thing."

Based on the responses gathered from the individual interviews with Janet, a Developmental Academic program participant and Casey, a Residential College participant, conducted in the qualitative phase of this study, the data gathered supports the quantitative findings that participants in a Residential College have higher levels of *Peer Learning* than Developmental Academic postsecondary transition program participants.

Casey developed a support system through the Honors Residential College that impacted her positive peer learning experiences while Janet's lack of connection to a Residential College increased her feelings of isolation in her peer learning interactions.

College Self-Efficacy, First-Generation Status, Between Postsecondary Transition Programs: Quantitative Findings. This study investigated the difference in levels of college self-efficacy between first-generation and non-first-generation students who receive services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models.

As seen is Tables 15-18 the mean scores for each of the college self-efficacy sub-scales between first-generation and non-first-generation students in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of first-generation students among each of the postsecondary transition programs (n-77) was fairly even (Developmental Academic=37.7%, Residential Colleges= 33.8%, and First Year Intervention=28.5%). In the non-first-generation group, the number of non-first-generation students in the Residential Colleges group far exceeded that of the Developmental Academic and First Year Intervention groups (Residential Colleges=54.1%, Developmental Academic=22.5%, First Year Intervention=23.4%).

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within first-generation and non-first-generation participants. Using this technique allowed the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted within the first-generation and non-first-generation participant groups across the postsecondary transition program groups.

Table 15. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales Based on Postsecondary Transition Program Model & First-Generation/Non-First-Generation

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				First Generation					
Social Efficacy	5.78	1.76	29	5.61	1.39	26	5.76	1.15	22
Course Efficacy	6.33	1.32	29	6.62	1.00	26	6.29	.86	22
Academic Self-Efficacy	3.52	.72	29	3.64	.50	26	3.55	.48	22
Intrinsic Goal Orientation	5.03	1.10	29	4.88	1.14	26	4.83	1.11	22
Peer Learning	3.54	1.72	29	4.29	1.44	26	3.91	1.39	22
Critical Thinking	4.81	1.44	29	4.88	1.23	26	4.43	1.20	22
Time & Study Management	4.92	.97	29	5.17	.96	26	5.03	.73	22
Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Non-First Generation					
Social Efficacy	5.98	1.55	47	6.19	1.37	113	5.97	1.49	49
Course Efficacy	6.36	.96	47	6.69	.93	113	6.66	1.19	49
*Academic Self-Efficacy	3.61	.62	47	3.83	.46	113	3.78	.48	49
*Intrinsic Goal Orientation	4.74	1.27	47	5.19	.97	113	5.01	.89	49
Peer Learning	3.99	1.38	47	4.36	1.63	113	4.02	1.39	49
Critical Thinking	4.42	1.11	47	4.74	1.17	113	4.52	1.27	49
Time & Study Management	4.98	1.00	47	5.29	.86	113	5.23	1.04	49

Table 16. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales Developmental Academic Program Model-First-Generation/Non-First-Generation

Developmental Academic						
	First Generation			Non-First Generation		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.78	1.76	29	5.98	1.55	47
Course Efficacy	6.33	1.32	29	6.36	.96	47
Academic Self-Efficacy	3.52	.72	29	3.61	.62	47
Intrinsic Goal Orientation	5.03	1.10	29	4.74	1.27	47
Peer Learning	3.54	1.72	29	3.99	1.38	47
Critical Thinking	4.81	1.44	29	4.42	1.11	47
Time & Study Management	4.92	.97	29	4.98	1.00	47

Table 17. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales Residential Colleges Program Model-First-Generation/Non-First-Generation

Residential Colleges						
	First Generation			Non-First Generation		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.61	1.39	26	6.19	1.37	113
Course Efficacy	6.62	1.00	26	6.69	.93	113
Academic Self-Efficacy	3.64	.50	26	3.83	.46	113
Intrinsic Goal Orientation	4.88	1.14	26	5.19	.97	113
Peer Learning	4.29	1.44	26	4.36	1.63	113
Critical Thinking	4.88	1.23	26	4.74	1.17	113
Time & Study Management	5.17	.96	26	5.29	.86	113

Table 18. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales First Year Intervention Program Model-First-Generation/Non-First-Generation

First Year Intervention						
	First Generation			Non-First Generation		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.76	1.15	22	5.97	1.49	49
Course Efficacy	6.29	.86	22	6.66	1.19	49
Academic Self-Efficacy	3.55	.48	22	3.78	.48	49
Intrinsic Goal Orientation	4.83	1.11	22	5.01	.89	49
Peer Learning	3.91	1.39	22	4.02	1.39	49
Critical Thinking	4.43	1.20	22	4.52	1.27	49
Time & Study Management	5.03	.73	22	5.23	1.04	49

Within First-Generation Participants, Between Postsecondary Transition Program

Groups. In Table 19, a one-way analysis of variance was conducted to explore the impact of

Post-Secondary Transition Programs on levels of subscales scales of college self-efficacy within first-generation participants. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the three postsecondary transition program groups.

Table 19. ANOVA Source Table-Within First-Generation participants; Between Postsecondary Transition Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.465	.232	.106	.900
Within groups	74	162.874	2.201		
Total	76	163.339			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.621	.811	.667	.516
Within groups	74	89.978	1.216		
Total	76	91.599			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.220	.110	.320	.727
Within groups	74	25.439	.344		
Total	76	25.659			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.590	.295	.234	.792
Within groups	74	93.293	1.261		
Total	76	93.883			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	7.809	3.905	1.644	.200
Within groups	74	175.761	2.375		
Total	76	183.570			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.661	1.331	.778	.463
Within groups	74	126.532	1.710		
Total	76	129.193			

(Table 19 continued)

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.892	.446	.547	.581
Within groups	74	60.329	.815		
Total	76	61.221			

Within Non-First-Generation Participants, Between Postsecondary Transition Program Groups. A one-way analysis of variance was conducted to explore the impact of *Post-Secondary Transition Program* on levels of subscales of college self-efficacy within non-first-generation participants. There was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores for the three postsecondary transition program groups: $F (2, 206) = 3.223$, $p = .042$. *Intrinsic Goal Orientation* scores for the three postsecondary transition program groups were also statistically significant: $F (2, 206) = 3.195$, $p = .043$. The actual difference in mean scores for *College Academic Self-Efficacy* and *Intrinsic Goal Orientation* between the groups was moderate. The effect size, calculated using Cohen's d, was .40.

Table 20. ANOVA Source Table: Within Non-First-Generation Participants, Between Postsecondary Transition Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.475	1.237	.595	.553
Within groups	206	428.596	2.081		
Total	208	431.071			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	3.974	1.987	1.973	.142
Within groups	206	207.463	1.007		
Total	208	211.437			

Table 20 (continued)

Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.666	.833	3.223	.042*
Within groups	206	53.246	.258		
Total	208	54.913			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	6.753	3.376	3.195	.043*
Within groups	206	217.682	1.057		
Total	208	224.435			
Peer Learning	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	6.732	3.366	1.450	.237
Within groups	206	478.205	2.321		
Total	208	484.937			
Critical Thinking	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	3.904	1.952	1.399	.249
Within groups	206	287.554	1.396		
Total	208	291.458			
Time & Study Management	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	3.271	1.635	1.863	.158
Within groups	206	180.798	.878		
Total	208	184.068			

Post-hoc comparisons using the Tukey HSD test indicated that the mean *College Academic Self-Efficacy* score for the Developmental Academic group (M= 3.61, SD= .62) was significantly different from the Residential Colleges group (M= 3.83, SD= .46). The First Year Intervention group (M=3.78, SD=.48) did not differ significantly from either the Developmental Academic of Residential Colleges group. Post-hoc comparisons using the Tukey HSD test indicated that the mean *Intrinsic Goal Orientation* score for the Developmental Academic group (M= 4.47, SD= 1.27) was significantly different from the Residential Colleges group (M= 5.19,

SD= .97). The First Year Intervention group (M=5.01, SD=.89) did not differ significantly from either the Developmental Academic of Residential Colleges group.

Comparisons Between First-generation & Non-First-Generation Participants, Within Each Postsecondary Transition Program. One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between first-generation and non-first-generation students within each of the *Developmental Academic, Residential Colleges, and First Year Intervention* groups. Using this technique allows the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted for within the first-generation and non-first-generation participants groups across the postsecondary transition program groups.

Comparisons Between First-generation & Non-First-Generation Participants, Within Developmental Academic. A one-way analysis of variance was conducted to explore the impact of *generational status* on levels of subscales scales of college self-efficacy within the *Developmental Academic* program participants. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the three postsecondary transition program groups, as illustrated in Table 21.

Table 21. ANOVA Source Table: First-Generation & Non-First-Generation, within Developmental Academic postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.777	.777	.291	.591
Within groups	74	197.469	2.668		
Total	75	198.246			

Table 21 (continued)

Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.017	.017	.013	.908
Within groups	74	91.582	1.238		
Total	75	91.599			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.155	.155	.359	.551
Within groups	74	31.926	.431		
Total	75	32.081			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.506	1.506	1.026	.314
Within groups	74	108.652	1.468		
Total	75	110.158			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	3.561	3.561	1.539	.219
Within groups	74	171.194	2.313		
Total	75	174.754			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	2.704	2.704	1.740	.191
Within groups	74	115.004	1.554		
Total	75	117.707			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.060	.060	.061	.722
Within groups	74	72.685	.982		
Total	75	72.745			

Comparisons Between First-generation & Non-First-Generation Participants, Within Residential Colleges. A one-way analysis of variance was conducted to explore the impact of *generational status* on levels of subscales scales of college self-efficacy within the *Residential College* program participants. There was no statistically significant difference at the

$p < .05$ level in any of the college self-efficacy subscale scores for the three postsecondary transition program groups.

Table 22. ANOVA Source Table: Between First-Generation & Non-First-Generation, within Residential Colleges postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	7.331	7.331	3.880	.051
Within groups	137	258.863	1.890		
Total	138	266.194			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.120	.120	.134	.715
Within groups	137	122.568	.895		
Total	138	122.687			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.796	.796	3.530	.062
Within groups	137	30.892	.225		
Total	138	31.688			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	2.003	2.003	1.979	.162
Within groups	137	138.655	1.012		
Total	138	140.658			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.098	.098	.038	.845
Within groups	137	349.308	2.550		
Total	138	349.405			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.397	.397	.284	.595
Within groups	137	191.357	1.397		
Total	138	191.754			

Table 22 (continued)

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.277	.277	.361	.549
Within groups	137	105.186	.768		
Total	138	105.464			

Comparisons Between First-generation & Non-First-Generation Participants, Within First Year Intervention. A one-way analysis of variance was conducted to explore the impact of *first-generation or non-first-generation* on levels of subscales scales of college self-efficacy within the *First Year Intervention* program participants. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the three postsecondary transition program groups.

Table 23. ANOVA Source Table: Differences in First-Generation & Non-First-Generation, within First Year Intervention postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.657	.657	.335	.564
Within groups	69	135.139	1.959		
Total	70	135.796			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	2.070	2.070	1.715	.195
Within groups	69	83.291	1.207		
Total	70	85.361			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	.811	.811	3.528	.065
Within groups	69	15.868	.230		
Total	70	16.679			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	.496	.496	.537	.466
Within groups	69	63.668	.923		
Total	70	64.164			

Table 23 (continued)

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.188	.188	.097	.756
Within groups	69	133.464	1.934		
Total	70	133.653			
Critical Thinking	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	.102	.102	.065	.799
Within groups	69	107.724	1.561		
Total	70	107.826			
Time & Study Management	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	.596	.596	.650	.423
Within groups	69	63.256	.917		
Total	70	63.851			

College Self-Efficacy, First-Generation Status, Between Postsecondary Transition Programs: Qualitative Findings. The quantitative analysis showed that first-generation students who participated in the Residential College program had lower levels of *Social Efficacy* than non-first-generation students who participated in Residential Colleges. *Social Efficacy* relates to students' interpersonal and social adjustment (Solberg et al., 1998).

Rami is a first-generation Residential College participant and when asked about influential interactions within the Residential Colleges, Rami responded by saying, "It was nice to have the social aspect because it is really easy to get caught up in academics and not socialize and I know that I have the tendency to get lost in my studies." Rami expressed that she often spends a great deal of time on her academic responsibilities and has limited social time, indicating a lack of academic and social balance as a college student. Considering the quantitative findings, Rami also scored *average/low* on the *Social Efficacy* subscale.

When asked about first college semester expectations, Janet responded:

> In high school you're so young but in college you have to grow up and everybody doesn't understand that so it will take me a minute to get friends because I don't know who to trust, what to expect from them because I didn't grow up with them or anything.

This response illustrates Janet's lack of confidence in her ability to make friends quickly while adjusting to the college environment as a result of being reluctant to trust and allow people to get close to her. This indicates a lower level of social efficacy because it is evident that she has not yet adjusted socially or interpersonally. Considering the quantitative findings, Janet also scored *very low* on the *Social Efficacy* subscale. This response is consistent with findings of Padgett, Johnson, and Pascarella (2012) and Martinez et al. (2009) research on first-generation students' attrition and first-year outcomes. Padgett, Johnson, and Pascarella (2012) found that first-generation students have lower levels of psychosocial outcomes following their first year in comparison than their non-first-generation counterparts. Padgett, Johnson, and Pascarella's (2012) study implications stress the importance of college campuses building social support networks targeting first-generation students. Martinez et al. (2009) found that social challenges and psychological distress are factors that contribute to university attrition among first-generation college students. Although the qualitative phase of this study did not include interviewing non-first-generation students, the quantitative and qualitative data gathered from study participants in addition to the consistency with the literature makes the assertion that *First-generation students* who participated in the Residential College program have lower levels of *Social Efficacy* than *non-first-generation students* who participated in Residential Colleges plausible.

College Self-Efficacy, Gender, Between Postsecondary Transition Programs: Quantitative Findings. This study examined the difference in levels of college self-efficacy between male and female students who receive services from Developmental Academic,

Residential College, or First Year Intervention postsecondary transition program models? As seen in Tables 24-27 the mean scores for each of the college self-efficacy sub-scales between male and female students in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of female students among the post-secondary transition programs consisted of Residential Colleges= 43.2%, Developmental Academic= 28.1%, and First Year Intervention=28.6%. The distribution of male students among post-secondary transition program consisted of Residential Colleges=59.6%, Developmental Academic=23.4%, and First Year Intervention= 17.0%. Overall the number of both female and male participants in Residential Colleges exceeded the number of female and male students in Developmental Academic and First Year Intervention programs.

Table 24. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales Based on Postsecondary Transition Program Model & Females/Males

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Females					
Social Efficacy	5.73	1.60	54	5.87	1.40	83	5.81	1.42	55
Course Efficacy	6.27	1.05	54	6.61	.99	83	6.57	1.12	55
*Academic Self-Efficacy	3.49	.65	54	3.75	.50	83	3.71	.49	55
Intrinsic Goal Orientation	4.70	1.19	54	5.09	.96	83	4.88	.92	55
Peer Learning	3.66	1.53	54	4.31	1.65	83	4.06	1.31	55
Critical Thinking	4.37	1.23	54	4.58	1.29	83	4.37	1.26	55
*Time & Study Management	4.91	.90	54	5.34	.89	83	5.27	.88	55

Table 24 (continued)

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Males					
*Social Efficacy	6.33	1.64	22	6.40	1.32	56	6.22	1.30	16
Course Efficacy	6.52	1.24	22	6.79	.86	56	6.48	1.07	16
Academic Self-Efficacy	3.79	.62	22	3.86	.44	56	3.69	.49	16
Intrinsic Goal Orientation	5.23	1.21	22	5.20	1.08	56	5.20	1.08	16
Peer Learning	4.20	1.48	22	4.41	1.52	56	3.73	1.63	16
*Critical Thinking	5.06	1.21	22	5.04	.95	56	4.93	1.08	16
Time & Study Management	5.06	1.18	22	5.16	.84	56	4.84	1.16	16

Table 25. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub- Scales Developmental Academic Program Model-Females/Males

Developmental Academic						
	Females			Males		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.73	1.60	54	6.33	1.64	22
Course Efficacy	6.27	1.05	54	6.52	1.24	22
Academic Self-Efficacy	3.49	.65	54	3.79	.62	22
Intrinsic Goal Orientation	4.70	1.19	54	5.23	1.21	22
Peer Learning	3.66	1.53	54	4.20	1.48	22
Critical Thinking	4.37	1.23	54	5.06	1.21	22
Time & Study Management	4.91	.90	54	5.06	1.18	22

Table 26. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub- Scales Residential Colleges Program Model-Females/Males

Residential Colleges						
	Females			Males		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.87	1.40	83	6.40	1.32	56
Course Efficacy	6.61	.99	83	6.79	.86	56
Academic Self-Efficacy	3.75	.50	83	3.86	.44	56
Intrinsic Goal Orientation	5.09	.96	83	5.20	1.08	56
Peer Learning	4.31	1.65	83	4.41	1.52	56

Table 26 (continued)

Residential Colleges						
	Females			Males		
Critical Thinking	4.58	1.29	83	5.04	.95	56
Time & Study Management	5.34	.89	83	5.16	.84	56

Table 27. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales First Year Intervention Program Model-Females/Males

First Year Intervention						
	Females			Males		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.81	1.42	55	6.22	1.30	16
Course Efficacy	6.57	1.12	55	6.48	1.07	16
Academic Self-Efficacy	3.71	.49	55	3.69	.49	16
Intrinsic Goal Orientation	4.88	.92	55	5.20	1.08	16
Peer Learning	4.06	1.31	55	3.73	1.63	16
Critical Thinking	4.37	1.26	55	4.93	1.08	16
Time & Study Management	5.27	.88	55	4.84	1.16	16

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within male and female participant groups. Using this technique allowed the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted within the male and female participant groups across the postsecondary transition program groups.

Within Male Participants, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Post-Secondary Transition Program* on levels of subscales scales of college self-efficacy within male participants. As seen in Table 28, there was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the three postsecondary transition program groups.

Table 28. ANOVA Source Table: Within Male Participants, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.434	.217	.111	.895
Within groups	91	177.742	1.953		
Total	93	178.176			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	1.791	.896	.906	.408
Within groups	91	89.938	.988		
Total	93	91.729			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	.373	.186	.757	.472
Within groups	91	22.418	.246		
Total	93	22.791			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	.011	.006	.005	.995
Within groups	91	112.693	1.238		
Total	93	112.705			
Peer Learning	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	5.846	2.923	1.251	.291
Within groups	91	212.638	2.337		
Total	93	218.483			
Critical Thinking	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	.199	.100	.093	.911
Within groups	91	97.469	1.071		
Total	93	97.669			
Time & Study Management	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	1.230	.615	.632	.534
Within groups	91	88.577	.973		
Total	93	89.808			

Within Females, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Post-Secondary Transition Program* on levels of subscales scales of college self-efficacy within female participants as seen in Table 29. There was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores for the three postsecondary transition program groups: $F(2, 189) = 4.202$, $p = .016$. *Time & Study Management* scores for the three postsecondary transition program groups were also statistically significant: $F(2, 189) = 4.006$, $p = .020$. The actual difference in mean scores *College Academic Self-Efficacy* and *Time & Study Management* between the groups was moderate. The effect size, calculated using Cohen's d, was .45 for *College Academic Self-Efficacy* and .48 for *Time & Study Management*.

Table 29. ANOVA Source Table: Within Females, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.632	.316	.147	.863
Within groups	189	405.429	2.145		
Total	191	406.061			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	4.058	2.029	1.847	.160
Within groups	189	207.564	1.098		
Total	191	211.621			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	2.496	1.248	4.202	.016*
Within groups	189	56.141	.297		
Total	191	58.637			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	5.015	2.507	2.414	.092
Within groups	189	196.313	1.039		
Total	191	201.328			

Table 29 (continued)

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	13.771	6.885	2.965	.054
Within groups	189	438.970	2.323		
Total	191	452.741			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.129	1.064	.667	.515
Within groups	189	301.681	1.596		
Total	191	303.810			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	6.352	3.176	4.006	.020*
Within groups	189	149.812	.793		
Total	191	156.164			

Post-hoc comparisons using the Tukey HSD test indicated that the mean *College Academic Self-Efficacy* score for the Developmental Academic group (M= 3.49, SD= .65) was significantly different from the Residential Colleges group (M= 3.75, SD= .50). The First Year Intervention group (M=3.71, SD=.49) did not differ significantly from either the Developmental Academic or Residential Colleges group. Post-hoc comparisons using the Tukey HSD test indicated that the mean *Time & Study Management* score for the Developmental Academic group (M=4.91 , SD= .90) was significantly different from the Residential Colleges group (M= 5.34, SD= .89). The First Year Intervention group (M=5.27, SD=.88) did not differ significantly from either the Developmental Academic of Residential Colleges group.

Differences in Males & Females, within Developmental Academic. A one-way analysis of variance was conducted to explore the impact of *gender* on levels of subscales scales of college self-efficacy within the *Developmental Academic* postsecondary transition program group as seen in Table 30. There was a statistically significant difference at the $p < .05$ level in *Critical Thinking* scores for the male and female groups: $F (1, 74) = 4.988$, $p = .029$. The actual

difference in mean scores for *Critical Thinking* between the groups was moderate. The effect size, calculated using Cohen's d was .57. Results indicated that males (M=5.06, SD=1.21) had a higher level of *Critical Thinking* than females (M=4.37, SD=1.23).

Table 30. ANOVA Source Table: Differences in Males & Females, within Developmental Academic postsecondary transition program model

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	5.591	5.591	2.148	.147
Within groups	74	192.655	2.603		
Total	75	198.246			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.989	.989	.808	.372
Within groups	74	90.610	1.224		
Total	75	91.599			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.485	1.485	3.592	.062
Within groups	74	30.596	413		
Total	75	32.081			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	4.285	4.285	2.995	.088
Within groups	74	105.873	1.431		
Total	75	110.158			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	4.499	4.499	1.955	.166
Within groups	74	170.256	2.301		
Total	75	174.754			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	7.433	7.433	4.988	.029*
Within groups	74	110.275	1.490		
Total	75	117.707			

Table 30 (continued)

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.328	.328	.335	.565
Within groups	74	72.417	.979		
Total	75	72.745			

Differences in Males & Females, within Residential Colleges. A one-way analysis of variance was conducted to explore the impact of *gender* on levels of subscales of college self-efficacy within the *Residential Colleges* postsecondary transition program group as seen in Table 31. There was a statistically significant difference at the $p < .05$ level in *Social Efficacy* scores for the male and female groups: $F (1, 137) = 5.037$, $p = .026$. There was also statistical significance at the $p < .05$ level in *Critical Thinking* scores for the male and females group: $F (1, 137) = 5.075$, $p=.026$. The actual difference in mean scores for *Social Efficacy* and *Critical Thinking* between the groups within the *Residential College* group was moderate. The effect size, calculated using Cohen's d was .39 for *Social Efficacy*, and .41 for *Critical Thinking*. Results indicated that males (M=6.40, SD= 1.32) had a higher level of *Social Efficacy* than females (M=5.87, SD=1.40). In addition, results indicated that males (M=5.04, SD=.95) had a higher level of *Critical Thinking* than females (M=4.58, SD=1.29).

Table 31. ANOVA Source Table: Differences in Males & Females, within Residential Colleges postsecondary transition program group

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	9.439	9.439	5.037	.026*
Within groups	137	256.755	1.874		
Total	138	266.194			

Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.061	1.061	1.195	.276
Within groups	137	121.626	.888		
Total	138	122.687			

Table 31 (continued)

Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.401	.401	1.756	.187
Within groups	137	31.287	.228		
Total	138	32.688			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.409	.409	.399	.529
Within groups	137	140.250	1.024		
Total	138	140.658			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.344	.344	.135	.714
Within groups	137	349.061	2.548		
Total	138	349.405			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	6.849	6.849	5.075	.026*
Within groups	137	184.905	1.350		
Total	138	191.754			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.133	1.133	1.488	.225
Within groups	137	104.330	.762		
Total	138	105.464			

Differences in Males & Females, within First Year Intervention. A one-way analysis of variance was conducted to explore the impact of *gender* on levels of subscales of college self-efficacy within the *First Year Intervention* postsecondary transition program group. As shown in Table 32, there was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the male and female groups.

Table 32. ANOVA Source Table: Differences in Males & Females, within First Year Intervention postsecondary transition program group

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	2.034	2.034	1.049	.309
Within groups	69	133.762	1.939		
Total	70	135.796			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.096	.096	.078	.781
Within groups	69	85.265	1.236		
Total	70	85.361			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	003	.003	.011	.917
Within groups	69	16.676	.242		
Total	70	16.679			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.280	1.280	1.404	.240
Within groups	69	62.884	.911		
Total	70	64.164			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.362	1.362	.710	.402
Within groups	69	132.291	1.917		
Total	70	133.653			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	3.855	3.855	2.559	.114
Within groups	69	103.971	1.507		
Total	70	107.826			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	2.209	2.209	2.473	.120
Within groups	69	61.642	893		
Total	70	63.851			

College Self-Efficacy, Gender, Between Postsecondary Transition Programs: Qualitative Findings. Quantitative results showed that female Residential College students have higher levels of *College Academic Self-Efficacy* than female Developmental Academic program participants. When asked to explain her expectations for her first semester of college, Jewel, a first-generation female Residential College participant responded:

> I really expected to have an easy transition academically. I felt that the course I had already previously planned to take, I felt like I would be able to succeed in those…. Jewel further explained,
>
> …after the first semester I had a 4.0 GPA, so I felt very successful. So I was basically, you know that I can do it. So it was kind of the same thing I know that I can achieve this so why settle for anything less. Just continue doing what I am doing and continue to be the best that I can be or whatever I out my mind to.

Jewel's responses presented a positive outlook on her academic abilities and exuded confidence in academic career, which is an example of a high level of *College Academic Self-Efficacy*. Quantitatively, Jewel scored *average-somewhat high* on *College Academic Self-Efficacy* subscale.

Janet, a first-generation female student who participated in Developmental Academic postsecondary transition program explained her expectations for her first semester at the University,

> It was expected that the professors would be hard, because we were told in high school…but it's going to be hard whenever you get into the real world and so I expected it to be kind of hard. I expected all the studying but not as much and I also expected to struggle because you are transitioning from high school to college and they are totally different. Then I am away from my family and I also expected not to join any sororities or anything like that."
>
> Janet described her first semester at the University,
>
> My first semester was my worst semester and hopefully, I won't have another semester like that. My first semester was my learning semester. Learning how everything works, and what I had to do and what I shouldn't do. My first semester I earning a 1.0 and I was placed on academic probation and it wasn't so good and I was the worst semester ever. I

> don't want to face it again. If I fail again then I will have to change my major from business to something else and I really want to major in business.

Janet's expectations of her first semester at the University were filled with some uncertainty about her abilities, expressing that it would be hard and that she would most likely struggle. Her first semester ended up not being very successful, having had a 1.0 GPA and placed on academic probation. Janet's explanations displayed low college self-efficacy, having very little confidence in her academic abilities to succeed at the University. Quantitatively, Janet scored *low* on the *College Academic Self-Efficacy* subscale.

Based on the quantitative findings and interviews, it is clear that Jewel had a much higher level of college self-efficacy than Janet did, and Jewel ended up having a much more successful first semester than Janet had. The qualitative findings support the quantitative findings assertion that females who participate in Residential Colleges have higher college self-efficacy than those who only participate in Developmental Academic programs.

Quantitative findings showed that female students who participated in the *Residential College* program had higher levels of *Time & Study Management* than female *Developmental Academic* program participants. When asked about any barriers or challenges that hindered her academic success, Janet responded,

> Not knowing how to study. I still to this day do not know how to study for tests. As much as people tell you to make flash cards, review this, review that, but it's like when you get the test it's a whole another story because the way in which you study is not the way the teacher is going to present it to you….It's like you have to think,…

This response indicates a low level self-efficacy in *Time & Study Environment* by the mention of not knowing how to study effectively to achieve success. Janet scored in the *mid to high* range on the *Time and Study Environment* subscale.

Casey, who participates in the Honors Residential College, explained that

> The residential college just fosters where we are only in one place because I have at least four people in every class and they are living in the same dorm as me, which works as far as discipline. So that is more of a people foster come together and work on a project or study the same class you might be in or anything else.

Referring to the honors residential college, Casey said

> I am staying there next semester. It is the exact type of environment you want to be in. I can study…everybody else will be doing the same thing.

Based on her description of her study experience as a result of being a part of the honors residential college, it sounds as though Casey is much more confident in her study skills and abilities than Janet. Casey also scored in the *very high* range on the *Time and Study Environment* self-efficacy subscale, a higher score than Janet. This finding is consistent with the significant quantitative finding that female Residential College students had higher levels of *Time and Study Management* than female Developmental Academic program participants.

This qualitative finding is also consistent with Kelly, Kendrick, Newgent, & Lucas' (2007) study on intervention strategies which could reduce attrition rates among college students. The study implications call for transition programs targeting study skills and time management, which should be offered to first-generation students on the college level, assisting in their cognitive development and enhancing their self-confidence (Kelly, Kendrick, Newgent, & Lucas, 2007).

College Self-Efficacy, ACT, Between Postsecondary Transition Programs: Quantitative Findings. This study investigated the difference in levels of college self-efficacy students who are receiving services from Developmental Academic, Residential College, or First Year Intervention postsecondary transition program models based on ACT score range. Respondents were asked to indicate the ACT score that applied to them (i.e. 31-36, 26-30, 21-25, 16-20). The distribution of these ranges weighed heavily in the 31-36 and 26-30 ranges. In order to maintain more even distribution, the range options were collapsed into *High ACT score range*

(i.e. 26-36) and *Low ACT score range* (i.e. 16-25). As seen is Tables 33-36 the mean scores for each of the college self-efficacy sub-scales between students in high and low ACT score ranges in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of students in high ACT score range (i.e. 36-26) among the post-secondary transition programs consisted of Residential Colleges= 55.3%, Developmental Academic= 20.7%, and First Year Intervention=24.0%. The distribution of students in low ACT score range (i.e. 25-16) among post-secondary transition program consisted of Residential Colleges=35.7%, Developmental Academic=37.8%, and First Year Intervention= 26.5%. Overall the number of students in high ACT score range exceeded the number of student in low ACT score range.

Table 33. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales Based on Postsecondary Transition Program Model & Low ACT/High ACT

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				High ACT					
Social Efficacy	6.05	1.63	39	6.02	1.38	104	6.07	1.39	45
Course Efficacy	6.58	1.11	39	6.77	.89	104	6.58	1.12	45
*Academic Self-Efficacy	3.78	.63	39	3.90	.44	104	3.81	.45	45
Intrinsic Goal Orientation	5.12	1.20	39	5.19	1.05	104	4.97	1.01	45
Peer Learning	4.02	1.52	39	4.41	1.61	104	3.94	1.47	45
*Critical Thinking	4.86	1.20	39	4.85	1.21	104	4.57	1.07	45
Time & Study Management	5.04	1.12	39	5.29	.86	104	5.13	.99	45

(Table 33 continued)

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Low ACT					
Social Efficacy	5.75	1.63	37	6.26	1.42	35	5.63	1.39	26
Course Efficacy	6.09	1.06	37	6.42	1.06	35	6.49	1.09	26
Academic Self-Efficacy	3.36	.62	37	3.50	.48	35	3.53	.51	26
Intrinsic Goal Orientation	4.58	1.18	37	4.96	.88	35	4.93	.89	26
Peer Learning	3.60	1.53	37	4.18	1.53	35	4.06	1.23	26
Critical Thinking	4.28	1.25	37	4.51	1.07	35	4.35	1.50	26
Time & Study Management	4.86	.82	37	5.21	.93	35	5.25	.90	26

Table 34. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **Developmental Academic Program Model-High ACT/Low ACT**

Developmental Academic						
	High ACT			Low ACT		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	6.05	1.63	39	5.75	1.63	37
Course Efficacy	6.58	1.11	39	6.09	1.06	37
Academic Self-Efficacy	3.78	.63	39	3.36	.62	37
Intrinsic Goal Orientation	5.12	1.20	39	4.58	1.18	37
Peer Learning	4.02	1.52	39	3.60	1.53	37
Critical Thinking	4.86	1.20	39	4.28	1.25	37
Time & Study Management	5.04	1.12	39	4.86	.82	37

Table 35. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **Residential Colleges Program Model- High ACT/Low ACT**

Residential Colleges						
	High ACT			Low ACT		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	6.02	1.38	104	6.26	1.42	35
Course Efficacy	6.77	.89	104	6.42	1.06	35
Academic Self-Efficacy	3.90	.44	104	3.50	.48	35
Intrinsic Goal Orientation	5.19	1.05	104	4.96	.88	35

Table 35 (continued)

Residential Colleges						
	High ACT			Low ACT		
Peer Learning	4.41	1.61	104	4.18	1.53	35
Critical Thinking	4.85	1.21	104	4.51	1.07	35
Time & Study Management	5.29	.86	104	5.21	.93	35

Table 36. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **First Year Intervention Program Model- High ACT/Low ACT**

First Year Intervention						
	High ACT			Low ACT		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	6.07	1.39	45	5.63	1.39	26
Course Efficacy	6.58	1.12	45	6.49	1.09	26
Academic Self-Efficacy	3.81	.45	45	3.53	.51	26
Intrinsic Goal Orientation	4.97	1.01	45	4.93	.89	26
Peer Learning	3.94	1.47	45	4.06	1.23	26
Critical Thinking	4.57	1.07	45	4.35	1.50	26
Time & Study Management	5.13	.99	45	5.25	.90	26

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within low ACT and high ACT participant groups. Using this technique allows the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted within the high ACT and low ACT participant groups across the postsecondary transition program groups.

Within High ACT, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Postsecondary Transition Program Models* on levels of subscales scales of college self-efficacy within the *High ACT* group as seen in Table 37. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the male and female groups.

Table 37. ANOVA Source Table within High ACT, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.063	.032	.015	.985
Within groups	185	381.262	2.061		
Total	187	381.326			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.562	.781	.786	.457
Within groups	185	183.846	.994		
Total	187	185.408			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.511	.256	1.088	.339
Within groups	185	43.453	.235		
Total	187	43.964			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.602	.801	.700	.498
Within groups	185	211.710	1.144		
Total	187	213.311			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	8.748	4.374	1.791	.170
Within groups	185	451.821	2.442		
Total	187	460.569			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.681	1.340	970	.381
Within groups	185	255.724	1.382		
Total	187	258.404			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.038	1.019	1.132	.325
Within groups	185	166.620	.901		
Total	187	168.658			

Within Low ACT, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Postsecondary Transition Program Models* on levels of subscales scales of college self-efficacy within the *Low ACT* group as seen in Table 38. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores for the male and female groups.

Table 38. ANOVA Source Table within Low ACT, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	7.443	3.722	1.664	.195
Within groups	95	212.524	2.237		
Total	97	219.967			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	3.070	.781	1.350	.264
Within groups	95	108.032	.994		
Total	97	111.103			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.544	.272	.926	.400
Within groups	95	27.914	.294		
Total	97	28.458			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	3.163	1.582	1.558	.216
Within groups	95	96.469	1.015		
Total	97	99.633			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	6.613	3.307	1.562	.215
Within groups	95	201.156	2.117		
Total	97	207.769			

Table 38 (continued)

Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.999	.500	.314	.732
Within groups	95	151.280	1.592		
Total	97	152.279			

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	3.021	1.511	1.928	.151
Within groups	95	74.448	.784		
Total	97	77.469			

Differences in High ACT & Low ACT, within Developmental Academic. A one-way analysis of variance was conducted to explore the impact of *ACT* on levels of subscales scales of college self-efficacy within the *Developmental Academic* postsecondary transition program group as shown as Table 39. As expected, there was a statistically significant difference at the p < .05 level in *Critical Thinking* scores for the High ACT and Low ACT groups: F (1, 74) = 4.257, p = .043. The actual difference in mean scores for *Critical Thinking* between the groups was moderate. The effect size, calculated using Cohen's d, was .47. Results indicated that High ACT (M=4.86, SD=1.20) had a higher level of *Critical Thinking* than Low ACT (M=4.28, SD=1.25). Also as expected, there was a statistically significant difference at the p < .05 level in *College Academic Self-Efficacy* scores for the High ACT and Low ACT groups: F (1, 74) = 8.911, p = .004. The actual difference in mean scores for *College Academic Self-Efficacy* between the groups was quite large. The effect size, calculated using Cohen's d, was .67. Results indicated that High ACT (M=3.78, SD=.63) had a higher level of *College Academic Self-Efficacy* than Low ACT (M=3.36, SD=.62).

Table 39**.** ANOVA Source Table: Differences in High ACT & Low ACT, within Developmental Academic postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.723	1.723	.649	.423
Within groups	74	196.522	2.656		
Total	75	198.246			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	4.554	4.554	3.872	.053
Within groups	74	87.045	1.176		
Total	74	91.599			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	3.448	3.448	8.911	.004*
Within groups	74	28.633	.387		
Total	75	32.081			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	5.420	5.420	3.880	.054
Within groups	74	104.738	1.415		
Total	75	110.158			
Peer Learning	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	3.246	3.246	1.401	.240
Within groups	74	171.508	2.318		
Total	75	174.754			
Critical Thinking	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	6.403	6.403	4.257	.043*
Within groups	74	111.304	1504		
Total	75	117.707			
Time & Study Management	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	.572	.572	.587	.446
Within groups	74	72.173	.975		
Total	75	72.745			

Differences in High ACT & Low ACT, within Residential Colleges. A one-way analysis of variance was conducted to explore the impact of *ACT* on levels of subscales scales of college self-efficacy within the *Residential Colleges* postsecondary transition program group as shown in Table 40. As expected, there was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores for the High ACT and Low ACT groups: $F(1, 138) = 21.568$, $p = .000$. The actual difference in mean scores for *College Academic Self-Efficacy* between the groups was large. The effect size, calculated using Cohen's d, was .87. Results indicated that High ACT (M=3.90, SD=.44) had a higher level of *College Academic Self-Efficacy* than Low ACT (M=3.50, SD=.48).

Table 40. ANOVA Source Table: Differences in High ACT & Low ACT, within Residential Colleges postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.511	1.511	.782	.378
Within groups	137	264.683	1.932		
Total	138	266.194			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	3.087	3.087	3.536	.062
Within groups	137	119.600	.873		
Total	138	122.687			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	4.310	4.310	21.568	.000*
Within groups	137	27.378	.200		
Total	138	31.688			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	1	1.362	1.362	1.339	.249
Within groups	137	139.297	1.017		
Total	138	140.658			

Table 40 (continued)

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.339	1.339	.527	.469
Within groups	137	348.067	2.541		
Total	138	349.405			

Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	3.087	3.087	2.242	.137
Within groups	137	188.667	1.377		
Total	138	191.754			

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.163	.163	.212	.646
Within groups	137	105.300	.769		
Total	138	105.464			

Differences in High ACT & Low ACT, within First Year Intervention. A one-way analysis of variance was conducted to explore the impact of *ACT* on levels of subscales scales of college self-efficacy within the *First Year Intervention* postsecondary transition program group as shown in Table 41. As expected, there was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores for the High ACT and Low ACT groups: $F(1, 70) = 5.942$, $p = .017$. The actual difference in mean scores for *College Academic Self-Efficacy* between the groups was moderate. The effect size, calculated using Cohen's d, was .58. Results indicated that High ACT (M=3.81, SD=.45) had a higher level of *College Academic Self-Efficacy* than Low ACT (M=3.53, SD=.51).

Table 41. ANOVA Source Table: Differences in High ACT & Low ACT, within First Year Intervention postsecondary transition program group.

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	3.215	3.215	1.673	.200
Within groups	69	132.581	1.921		

Table 41 (continued)

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Total	70	135.796			

Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.128	.128	.103	.749
Within groups	69	85.233	1.235		
Total	70	85.361			

Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	1.323	1.323	5.942	.017*
Within groups	69	15.356	.233		
Total	70	16.679			

Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.019	.019	.020	.887
Within groups	69	64.145	.930		
Total	70	64.164			

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.251	.251	.130	.720
Within groups	69	133.402	1.933		
Total	70	133.653			

Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.794	.794	.512	.477
Within groups	69	107.033	1.551		
Total	70	107.826			

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	1	.257	.257	.279	.599
Within groups	69	63.594	.922		
Total	70	63.851			

College Self-Efficacy, Income Status, Between Postsecondary Transition Programs:

Quantitative Findings. This study examined the difference in levels of college self-efficacy students who are receiving services from Developmental Academic, Residential College, or First

Year Intervention postsecondary transition program models based on Parent Income Level. Respondents were asked to indicate the Parent Income Level that applied to them (i.e. $100,000 or more, $75,000-$100,000, $50,000-$75,000, $25,000-$50,000, $0-$25,000). The distribution of these ranges weighed heavily in the ranges $100,000 or more, $75,000-$100,000 ranges. In order to maintain more even distribution, the range options were collapsed into *High Parent Household Income* (i.e. $100,000 or more), *Middle Parent Household Income* (i.e. $50,000-$100,000), and *Low Parent Household Income* (i.e. $0-$50,000). As shown is Tables 42-45 the mean scores for each of the college self-efficacy sub-scales between students among high, middle, and low income ranges in the Developmental Academic, Residential Colleges, and First Year Intervention groups were compared. The distribution of students in high parent household income range (i.e. $100,000 or more) among the post-secondary transition programs consisted of Residential Colleges= 57.0%, Developmental Academic= 20.0%, and First Year Intervention=23.0%. The distribution of students in middle parent household income range (i.e. $50,000-$100,000) among post-secondary transition program consisted of Residential Colleges=52.1%, Developmental Academic=23.9%, and First Year Intervention= 23.9%. The distribution of students in low parent household income range (i.e. $0-$50,000) among post-secondary transition program consisted of Residential Colleges=30.4%, Developmental Academic=40.6%, and First Year Intervention= 29.0%.

Table 42. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub- Scales Based on Postsecondary Transition Program Model & Low Income, Middle Income, & High Income

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Low Income					
Social Efficacy	5.20	1.59	28	5.82	1.72	21	5.71	1.12	20
Course Efficacy	5.99	.99	28	6.34	.95	21	6.46	.92	20

Table 42 (continued)

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Low Income					
*Academic Self Efficacy	3.43	.61	28	3.55	.58	21	3.68	.48	20
*Peer Learning	3.13	1.54	28	4.21	1.11	21	4.00	1.15	20
Critical Thinking	4.60	1.24	28	4.67	1.10	21	4.59	1.15	20
Time & Study	4.86	1.05	28	5.08	.79	21	5.07	.78	20
Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				Middle Income					
Social Efficacy	6.62	1.69	28	5.88	1.18	61	6.02	1.46	28
Course Efficacy	6.71	1.10	28	6.79	.92	61	6.45	1.28	28
Academic Self-Efficacy	3.78	.71	28	3.84	.45	61	3.68	.53	28
Intrinsic Goal Orientation	4.89	1.26	28	5.18	1.05	61	4.93	1.05	28
Peer Learning	4.15	1.33	28	4.36	1.65	61	4.07	1.27	28
Critical Thinking	4.75	1.38	28	4.77	1.30	61	4.49	1.25	28
Time & Study	5.10	.87	28	5.33	.85	61	5.05	1.10	28
Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				High Income					
Social Efficacy	5.89	1.14	20	6.40	1.43	57	5.93	1.56	23
Course Efficacy	6.33	1.15	20	6.69	.95	57	6.75	1.03	23

Table 42 (continued)

Treatment Program	Developmental Academic			Residential Colleges			First Year Intervention		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
				High Income					
Intrinsic Goal Orientation	4.78	1.07	20	5.19	.99	57	4.90	1.00	23
Peer Learning	4.30	1.48	20	4.40	1.70	57	3.87	1.71	23
Critical Thinking	4.30	1.08	20	4.80	1.09	57	4.41	1.35	23
Time & Study Management	4.88	1.06	20	5.27	.93	57	5.40	.91	23

Table 43. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **Developmental Academic Program Model-Low Income/Middle Income/High Income**

Developmental Academic									
	Low Income			Middle Income			High Income		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.20	1.59	28	6.62	1.69	28	5.89	1.14	20
Course Efficacy	5.99	.99	28	6.71	1.10	28	6.33	1.15	20
Academic Self-Efficacy	3.43	.61	28	3.78	.71	28	3.49	.58	20
Intrinsic Goal Orientation	4.88	1.29	28	4.89	1.26	28	4.78	1.07	20
Peer Learning	3.13	1.54	28	4.15	1.33	28	4.30	1.48	20
Critical Thinking	4.60	1.24	28	4.75	1.38	28	4.30	1.08	20
Time & Study Management	4.86	1.05	28	5.10	.87	28	4.88	1.06	20

Table 44. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **Residential Colleges Program Model- Low Income/Middle Income/High Income**

Residential Colleges									
	Low Income			Middle Income			High Income		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.82	1.72	21	5.88	1.18	61	6.40	1.43	57
Course Efficacy	6.34	.95	21	6.79	.92	61	6.69	.95	57
Academic Self-Efficacy	3.55	.58	21	3.84	.45	61	3.85	.45	57
Intrinsic Goal Orientation	4.85	.92	21	5.18	1.05	61	5.19	.99	57
Peer Learning	4.21	1.11	21	4.36	1.65	61	4.40	1.70	57
Critical Thinking	4.67	1.10	21	4.77	1.30	61	4.80	1.09	57
Time & Study Management	5.08	.79	21	5.33	.85	61	5.27	.93	57

Table 45. Means, Standard Deviations, and Sample Sizes of College self-efficacy Survey Sub-Scales **First Year Intervention Program Model- Low Income/Middle Income/High Income**

First Year Intervention									
	Low Income			Middle Income			High Income		
Subscales	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*
Social Efficacy	5.71	1.12	20	6.02	1.46	28	5.93	1.56	23
Course Efficacy	6.46	.92	20	6.45	1.28	28	6.75	1.03	23
Academic Self-Efficacy	3.68	.48	20	3.68	.53	28	3.76	.47	23
Intrinsic Goal Orientation	5.05	.80	20	4.93	1.05	28	4.90	1.00	23
Peer Learning	4.00	1.15	20	4.07	1.27	28	3.87	1.71	23
Critical Thinking	4.59	1.15	20	4.49	1.25	28	4.41	1.35	23
Time & Study Management	5.07	.78	20	5.05	1.10	28	5.40	.91	23

One-way ANOVA was the chosen method of analysis used to explore whether or not there were significant differences in the mean scores for each college self-efficacy sub-scale between participant groups from each postsecondary transition program within low income, middle income, and high income participant groups. Using this technique allows the researcher to examine the comparison of variance between different groups with the variability within each group (Pallant, 2010). The one-way ANOVA was conducted within the low income, middle income, and high income participant groups across the postsecondary transition program groups.

Within Low Income, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Postsecondary Transition Program Models* on levels of subscales scales of college self-efficacy within the *Low Income* group as shown in Table 46.

Table 46. ANOVA Source Table within Low Income, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	5.563	2.781	1.217	.303
Within groups	66	150.847	2.286		
Total	68	156.409			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.952	1.476	1.598	.210
Within groups	66	60.942	.923		

Table 46 (continued)

Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.766	.383	1.201	.307
Within groups	66	21.041	.319		
Total	68	21.807			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.511	.256	.227	.797
Within groups	66	74.197	1.124		
Total	68	74.708			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	16.244	8.122	4.695	.012*
Within groups	66	114.181	1.730		
Total	68	130.425			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.082	.041	.030	.971
Within groups	66	90.903	1.377		
Total	68	90.986			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.777	.389	.475	.624
Within groups	66	53.958	.818		
Total	68	54.736			

There was a statistically significant difference at the $p < .05$ level in *Peer Learning* scores between the postsecondary transition program groups: $F (2, 68) = 4.695$, $p = .012$.

Post-hoc comparisons using the Tukey HSD test indicated that the mean *Peer Learning* score for the Developmental Academic group (M= 3.13, SD= 1.54) was significantly different from the Residential Colleges group (M= 4.21, SD= 1.11). The actual difference in mean *Peer Learning* scores between the groups was large. The effect size, calculated using Cohen's d, was .80.

Within Middle Income Participants, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Postsecondary Transition Program Models* on levels of subscales scales of college self-efficacy within the

Middle Income group as shown in Table 47. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores between the postsecondary transition program model groups.

Table 47. ANOVA Source Table within Middle Income, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	10.820	5.410	2.828	.063
Within groups	114	218.129	1.913		
Total	116	228.950			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.234	1.117	.995	.373
Within groups	114	128.027	1.123		
Total	116	130.261			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.472	.236	.812	.447
Within groups	114	33.110	.290		
Total	116	33.581			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.205	1.103	.904	.408
Within groups	114	139.023	1.220		
Total	116	141.229			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.808	.904	.406	.667
Within groups	114	253.713	2.226		
Total	116	255.521			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.629	.815	.477	.622
Within groups	114	194.579	1.707		
Total	116	196.208			

Table 47 (continued)

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.915	.958	1.138	.324
Within groups	114	95.949	.842		
Total	116	97.864			

Within High Income Participants, Between Postsecondary Transition Program Models. A one-way analysis of variance was conducted to explore the impact of *Postsecondary Transition Program Models* on levels of subscales scales of college self-efficacy within the *High Income* group as shown in Table 48.

There was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores between the postsecondary transition program groups: $F (2, 99) = 4.054$, $p = .020$. The actual difference in mean scores *College Academic Self-Efficacy* between the groups was fairly large. The effect size, calculated using Cohen's d, was .69.

Table 48. ANOVA Source Table within High Income, Between Postsecondary Transition Program Models

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	5.821	2.910	1.471	.235
Within groups	97	191.944	1.979		
Total	99	197.765			
Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.289	1.144	1.122	.330
Within groups	97	98.936	1.020		
Total	99	101.225			
Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.893	.947	4.054	.020*
Within groups	97	22.646	.233		
Total	99	24.539			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	3.100	1.550	1.515	.225
Within groups	97	99.240	1.023		
Total	99	102.340			

Table 48 (continued)

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	4.617	2.309	.836	.436
Within groups	97	267.795	2.761		
Total	99	272.412			
Critical Thinking	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	4.833	2.416	1.819	.168
Within groups	97	128.833	1.328		
Total	99	133.666			
Time & Study Management	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	3.176	1.588	1.744	.180
Within groups	97	88.328	.911		
Total	99	91.504			

Post-hoc comparisons using the Tukey HSD test indicated that the mean *College Academic Self-Efficacy* score for the Developmental Academic group (M= 3.49, SD= .58) was significantly different from the Residential Colleges group (M= 3.85, SD= .45).

Within Developmental Academic, Between Income Ranges. A one-way analysis of variance was conducted to explore the impact of *Income Range* on levels of subscales scales of college self-efficacy within *Developmental Academic* postsecondary transition program as shown in Table 49.

There was a statistically significant difference at the $p < .05$ level in *Social Efficacy* scores between the Income Range groups: $F (2, 75) = 6.148$, $p = .003$. The actual difference in mean scores *Social Efficacy* between the groups was large. The effect size, calculated using Cohen's d, was .87. There was a statistically significant difference at the $p < .05$ level in *Peer Learning* scores between the Income Range groups: $F (2, 75) = 4.996$, $p = .009$. The actual difference in mean scores *Peer Learning* between the groups was large. The effect size, calculated using Cohen's d, was .77.

Table 49. *ANOVA Source Table within Developmental Academic Postsecondary Transition program, Between Income Ranges*

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	28.579	14.290	6.148	.003*
Within groups	73	169.667	2.324		
Total	75	198.246			

Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	7.198	3.599	3.113	.050*
Within groups	73	84.401	1.156		
Total	75	91.599			

Academic Self-Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.981	.991	2.402	.098
Within groups	73	30.100	.412		
Total	75	32.081			

Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.179	.090	.060	.942
Within groups	73	109.979	1.507		
Total	75	110.158			

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	21.039	10.519	4.996	.009*
Within groups	73	153.716	2.106		
Total	75	174.754			

Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	2.379	1.189	.753	.475
Within groups	73	115.329	1.580		
Total	75	117.707			

Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.987	.494	.502	.607
Within groups	73	71.758	.983		
Total	75	72.745			

Post-hoc comparisons using the Tukey HSD test indicated that the mean *Social Efficacy* score for the *Middle Income* group (M= 6.62, SD= 1.69) was significantly different from the *Low Income* group (M= 5.20, SD= 1.59). Post-hoc comparisons using the Tukey HSD test indicated

that the mean *Peer Learning* score for the *High Income* group (M= 4.30, SD= 1.48) was significantly different from the *Low Income* group (M= 3.13, SD= 1.54).

Within Residential College Postsecondary Transition Program, Between Income Ranges. A one-way analysis of variance was conducted to explore the impact of *Income Range* on levels of subscales scales of college self-efficacy within *Residential College* postsecondary transition program as shown in Table 50.

There was a statistically significant difference at the $p < .05$ level in *College Academic Self-Efficacy* scores between the Income Range groups: $F (2, 138) = 3.592$, $p = .030$. The actual difference in mean scores *College Academic Self-Efficacy* between the groups was moderate. The effect size, calculated using Cohen's d, was .58.

Table 50. *ANOVA Source Table within Residential College Postsecondary Transition program, Between Income Ranges*

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	9.618	4.809	2.549	.082
Within groups	136	256.576	1.887		
Total	138	266.194			
Course Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	3.206	1.603	1.824	.165
Within groups	136	119.482	.879		
Total	138	122.687			
Academic Self-Efficacy	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	1.590	.795	3.592	.030*
Within groups	136	30.098	.221		
Total	138	31.688			
Intrinsic Goal Orientation	***df***	***SS***	***MS***	***F***	***p***
Between groups	2	2.076	1.038	1.019	.364
Within groups	136	138.582	1.019		
Total	138	140.658			

Table 50 (continued)

Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.564	.282	.110	.896
Within groups	136	348.841	2.565		
Total	138	349.405			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.273	.137	.097	.908
Within groups	136	191.481	1.408		
Total	138	191.754			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
	2	1.013	.506	.659	.519
Within groups	136	104.451	.768		
Total	138	105.464			

Post-hoc comparisons using the Tukey HSD test indicated that the mean *College Academic Self-Efficacy* score for the *High Income* group (M= 3.85, SD= .45) was significantly different from the *Low Income* group (M= 3.55, SD= .58).

Within First Year Intervention Postsecondary Transition Program, Between Income Ranges. A one-way analysis of variance was conducted to explore the impact of *Income Range* on levels of subscales scales of college self-efficacy within *First Year Intervention* postsecondary transition program as shown in Table 51. There was no statistically significant difference at the $p < .05$ level in any of the college self-efficacy subscale scores between income ranges.

Table 51. ANOVA Source Table within First Year Intervention Postsecondary Transition program, Between Income Ranges

Social Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.118	.559	.282	.755
Within groups	68	134.678	1.981		
Total	70	135.796			

Table 51 (continued)

Course Efficacy	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.080	.040	.164	.849
Within groups	68	16.598	.244		
Total	70	16.679			
Intrinsic Goal Orientation	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.264	.132	.141	.869
Within groups	68	63.900	.940		
Total	70	64.164			
Peer Learning	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.520	.260	.133	.876
Within groups	68	133.133	1.958		
Total	70	133.653			
Critical Thinking	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	.321	.161	.102	.904
Within groups	68	107.505	1.581		
Total	70	107.826			
Time & Study Management	*df*	*SS*	*MS*	*F*	*p*
Between groups	2	1.824	.912	1.000	.373
Within groups	68	62.027	.912		
Total	70	63.851			

College Self-Efficacy, Income Status, Between Postsecondary Transition Programs: Qualitative Findings. Quantitative findings showed that low income students who participated in the *Residential College* program had higher levels of *Peer Learning* than *Low Income, Developmental Academic* program participants. When asked about her experience in the Residential College, Jewel, whose reported parent annual household income fell in the *Low Income* range, expressed

> I really like it. Especially with people who are all in my major…so a couple of weeks ago I had a test and there were a couple of answers on the study guide that I wasn't too sure about. So I just went down the hall and knocked on different doors. You have this question and they were like 'Yeah, you got this question?',…So it was like…we would talk about it. So that is the part about having people who are taking the same classes that you are and we can all

> discuss and help each other that way. That's the good part. And just the fact of having a close-knit group, you know, we will go to the kitchen and hang out and eat or go to the study room and study together or go to the TV room and watch TV and hang out, just like, I love it.

Although Jewel's quantitative score on the *Peer Learning* subscale was average, her explanation about seeking academic help from her peers displayed a level of confidence in learning from her peers as a result of residing in a Residential College.

Janet, whose reported parent annual household income falls in the Low Income category, had not participated in a Residential College, but did participate in a *Developmental Academic* postsecondary transition program. When asked about communicating with her peers, Janet responded,

> No, I don't have a social thing going on at school." Janet further explained "I don't want to get to know someone and like all of a sudden stop…Some people depend on other people to help them get through school so they will be able to party and stuff like that. Like my social life won't interact with the partying and the school, like [the University] is supposed to be a big party school so it's like I won't be able to go out with them and you know like when some people, you study with them but when it's time to go out they don't want to do it and stuff. Some people think that's like acting funny and like she don't want…she just doesn't like it. I just don't want to get into that. I don't like that.

Janet's quantitative score on the *Peer Learning* subscale was low, indicating a low level of confidence in learning from her peers. Based on her disclosure about having almost nonexistent interaction with her peers at the University, it is evident that Janet is not confident in her ability to learn from her peers.

This finding is expands on the findings from Bui (2002) whose primary research question was whether or not first-generation college students were in need of uniquely designed campus support services at colleges and universities in order to assist them with becoming more successful. Bui (2002) found that first-generation college students were more likely to come from lower socio-economic backgrounds than their non-first-generation counterparts. The implications for this study called for campus student support services tailoring their programs to

address the specific needs of first-generation college students on university campuses (Bui, 2002).

In this study, Jewel and Janet both indicated that they were from low socioeconomic backgrounds, however they participated in two different postsecondary transition programs (i.e. Jewel participated in a *Residential College* while Janet participated in a *Developmental Academic* program) Based on the comments about their respective accounts of their experiences with *Peer Learning*, it is evident that Jewel had a more meaningful experience and higher confidence in this subscale than Janet did, who mentioned that she chose to not partake in the social aspect of college life at the time of this study. Based on that fact that Jewel and Janet participated in two different postsecondary transition program models, this qualitative finding expands on Bui's (2002) finding that campus student support services should be tailored to first-generation student needs. Although they both came from low socioeconomic backgrounds and participated in a postsecondary transition program, Jewel and Janet had very different experiences and self-efficacy beliefs regarding *Peer Learning*, providing more support to the Bui's (2002) implication that such programs should be tailored to first-generation student needs. This also expands on Bui's (2002) implication by illustrating how program models and design can make a difference in academic outcomes of first-generation students from similar socioeconomic backgrounds.

Conclusion

This chapter provided the details associated with the research findings for each research question in this study. A number of significant findings were produced from this study. The difference in levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary

transition program models was examined in this study. It was found that students who participated in the Residential College program has higher levels of *College self-efficacy* than First-generation students who participated in Developmental Academic program participants. Quantitative data from the individual interviews support this finding. Students who participated in the Residential College program has higher levels of *Peer Learning* than First-generation students who participated in Developmental Academic program participants. Quantitative data from the individual interviews support this finding.

This study also explored the difference in levels of college self-efficacy between *first-generation* and *non-first-generation students* how receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models. *First-generation students* who participated in the Residential College program had lower levels of *Social Efficacy* than *non-first-generation students* who participated in Residential Colleges. Quantitative data from the individual interviews support this finding.

Non-first-generation students who participated in the *Residential College* program had higher levels of *College self-efficacy* than non-first-generation *Developmental Academic* program participants. *Non-first-generation* students who participated in the *Residential College* program had higher levels of *Intrinsic Goal Orientation* than non-first-generation *Developmental Academic* program participants.

The difference in levels of college self-efficacy between *male* and *female* students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models was examined. It was found that *Female students* who participated in the *Residential College* program had higher levels of *College self-efficacy* than female *Developmental Academic* program participants. Quantitative data from the individual

interviews support this finding. *Female students* who participated in the *Residential College* program had higher levels of *Time & Study Management* than female *Developmental Academic* program participants. Quantitative data from the individual interviews support this finding. *Males* who participated in *Developmental Academic* programs had higher levels of *Critical Thinking* than *females* who also participated in Developmental Academic programs. *Males* who participated in the *Residential College* program had higher levels of *Social Efficacy* than *female*s who also participated in Residential College program. *Males* who participated in the *Residential College* program had higher levels of *Critical Thinking* than *females* who also participated in Residential College program.

The difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *ACT score range* was examined in this study. As expected, *High ACT* students who participated in Developmental Academic programs had higher levels of *College self-efficacy* than *Low ACT* students who also participated in Developmental Academic programs. Also as expected, *High ACT* students who participated in the Residential College program had higher levels of *College self-efficacy* than *Low ACT* students who also participated in Developmental Academic programs. As expected, *High ACT* students who participated in the *First Year Intervention* programs had higher levels of *College self-efficacy* than *Low ACT* students who also participated in *First Year Intervention* programs.

This study investigated the difference in levels of college self-efficacy students who are receiving services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models based on *Parent Income Level*.

High Income students who participated in the *Residential College* program had higher levels of *College self-efficacy* than *High Income Developmental Academic* program participants.

Low Income students who participated in the *Residential College* program had higher levels of *Peer Learning* than *Low Income, Developmental Academic* program participants. Quantitative data from the individual interviews support this finding. *Middle Income students* who participated in *Developmental Academic* programs had higher levels of *Social Efficacy* than *Low Income students* who also participated in *Developmental Academic* programs. *High Income students* who participated in *Developmental Academic* programs had higher levels of *Peer Learning* than *low income students* who also participated in *Developmental Academic* programs. *High Income students* who participated in the *Residential College* program had higher levels of *College self-efficacy* than *low income students* who also participated in *Residential College* programs.

As aforementioned, various combinations of variables were analyzed and produced a number of conclusions, as discussed in Chapter V. Tables 52-55 illustrate the findings for analysis conducted within each postsecondary transition program group among independent variables and provide more understanding about the differences found on the college self-efficacy subscales and postsecondary transition programs.

Table 52. First-generation and Non-first generation student comparisons, between Postsecondary Transition Programs

1st Gen/Non-1st Gen Students	**Development Academic**	**Residential College**	**First Year**
Significant		Social Efficacy	
Not Significant	Course Efficacy Academic Self-Efficacy Intrinsic Goal Orientation	Course Efficacy Academic Self-Efficacy Time & Study Mgmt	Academic Self-Efficacy Time & Study Mgmt

Table 52 (continued)

1st Gen/Non-1st Gen Students	Development Academic	Residential College	First Year
Not Significant	Critical Thinking Time & Study Mgmt Peer Learning Social Efficacy	Peer Learning Intrinsic Goal Critical Thinking	Peer Learning Self Efficacy Intrinsic Goal Critical Thinking Course Efficacy

Table 53. Low and High ACT student comparisons, between Postsecondary Transition Programs

Low ACT & High ACT	Development Academic	Residential College	First Year
Significant	Course Efficacy Academic Self-Efficacy Intrinsic Goal Orientation Critical Thinking	Course Efficacy*(.06) Academic Self-Efficacy	Academic Self-Efficacy
Not Significant	Time & Study Mgmt Peer Learning Social Efficacy	Time & Study Mgmt Peer Learning Social Efficacy Intrinsic Goal Critical Thinking	Time & Study Mgmt Peer Learning Self Efficacy Intrinsic Goal Critical Thinking Course Efficacy

Table 54. Male and Female student comparisons, between Postsecondary Transition Programs

Males & Females	Development Academic	Residential College	First Year
Significant	Critical Thinking	Social Efficacy Critical Thinking	
Not Significant	Social Efficacy Course Efficacy Academic Self-Efficacy Intrinsic Goal Peer Learning Time & Study Mgmt.	Course Efficacy Academic Self-Efficacy Intrinsic Goal Peer Learning Time & Study Mgmt.	Academic Self-Efficacy Time & Study Mgmt. Peer Learning Social Efficacy Intrinsic Goal Critical Thinking Course Efficacy

Table 55. Low, Middle, and High Income student comparisons, between Postsecondary Transition Programs

Low, Mid, & High Income	Development Academic	Residential College	First Year
Significant	Social Efficacy Peer Learning	Academic Self-Efficacy	
Not Significant	Critical Thinking Course Efficacy Academic Self-Efficacy Intrinsic Goal Time & Study Mgmt.	Social Efficacy Critical Thinking Co urse Efficacy Intrinsic Goal Peer Learning Time & Study Mgmt.	Academic Self-Efficacy Time & Study Mgmt Peer Learning Social Efficacy Intrinsic Goal Critical Thinking Course Efficacy

As can be seen in these tables, there are trends that provide further insight into how each postsecondary transition program makes a difference within each of the groups examined in this study. These trends inform the evaluation of the impact that postsecondary transition programs currently have on college self-efficacy for various student populations.

CHAPTER V: CONCLUSIONS AND DISCUSSION

Introduction

The college self-efficacy of first-time freshmen students participating in postsecondary transition programs was the focus of this mixed methods study with a grounded theory design. The examination of the impact of postsecondary transition program models on the college self-efficacy of students consisted of both quantitative and qualitative methods. First-time freshmen college students were the target for this research and students' participation in a postsecondary transition program (i.e. Developmental Academic, Residential Colleges, and First Year Intervention) along with student demographic factors (i.e. first-generation/non-first-generation, male/female/, low ACT/high ACT, low income/middle income/ high income) were analyzed. Student college self-efficacy beliefs based on the measured subscales and how they differ among postsecondary transition program participation and demographic variables are discussed. This chapter includes discussion associated with the research findings for each research question in this study. The results are elaborated on and presented in sequence, relative to the postsecondary transition program models. Conclusions and summaries regarding the findings are included and the findings are linked to relevant research. Implications of findings are also discussed as well as study limitations and recommendations for future research are offered.

Summary of Findings

Residential Colleges. In this study, Residential College postsecondary transition programs are defined as programs that provide a seamless living-learning environment which fosters the development of three core outcomes: critical thinking ability, communication skills, and sense of community and social responsibility (Inkelas & Weisman, 2003). There are a number of distinctions that set the Residential College postsecondary transition program apart

from other postsecondary transition programs. Residential College is considered the most comprehensive program, providing an experience that allows first-time freshmen college students to have a smooth transition to the academic and social life of the University. Specifically, in this study Residential Colleges were geared toward student interests and majors (i.e. Career Discovery Residential College, Mass Communication Residential College, Science Residential College). By living with other students who have the same interests or major, it is likely that these students also take the same courses. Consequently, Residential College students have interactions with each other inside and outside of the classroom. Building a sense of community for students is an outcome of the Residential College program that is likely to be met as a result of students having increased interactions with their peers. An additional distinction of the Residential College program is faculty engagement, with most of the Residential Colleges housing faculty-in-residence who are easily accessible to the students who reside in said Residential College.

Differences between levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models were examined. There were statistically significant differences in levels of college self-efficacy between students who received services from *Developmental Academic, Residential College,* or *First Year Intervention* postsecondary transition program models. Specifically, this study found that students who participated in the Residential College program had more confidence in their abilities to complete academic tasks and had more confidence in their abilities to learn collaboratively with college peers than Developmental Academic and First Year Intervention participants.

As aforementioned, the Residential College program examined in this study offer programs specific to student interests and majors and with students taking similar courses together. In addition, faculty-in-residence are accessible, offering a form of supplemental instruction to students within the Residential College facility. The findings that students who participated in the Residential College program had more confidence in their abilities to complete academic tasks and had more confidence in their abilities to learn collaboratively with college peers than the other postsecondary transition program participants can be explained by these distinctions. It is speculated that supplemental instruction being offered within students' residence halls and increased interaction with peers in an academic setting is congruent with higher levels of confidence in college self-efficacy and peer learning. The in and out of classroom experiences that Residential Colleges provide mediates students' confidence in their abilities to be successful in completing academic tasks and learning from their peers.

Previous literature has highlighted a need for additional research on first-generation students and their college self-efficacy beliefs (Wright, Jenkins-Guarnieri, & Murdock, 2013). After examining differences in levels of college self-efficacy between first-generation and non-first-generation students within the Residential College program, it was found that first generation college students who participated in Residential Colleges had less confidence in their abilities to adjust interpersonally and socially than non-first generation college students who also participated in Residential Colleges. A distinction of the Residential Colleges that explains this finding is the opportunity for students to socially connect with their peers in and out of the classroom, in addition to faculty-in-residence, which creates a social support network. By students gaining social support from their peers and faculty their adjustment to the social aspect of the college experience are enhanced. Reflecting on the challenges that first-generation college

students face, although Residential Colleges offer opportunities for developing social support networks, first-generation students may not adjust interpersonally and socially as quickly as their non-first-generation counterparts due to a lack of social capital in comparison to non-first-generation students (Perna 2000).

This finding is consistent with that of Padgett, Johnson, and Pascarella (2012) who found that first-generation students have lower levels of psychosocial outcomes following their first year in comparison than their non-first-generation counterparts. Additionally, Martinez' et al. (2009) finding that social challenges and psychological distress are factors that contribute to university attrition among first-generation college students is indirectly supported by the findings in this study.

Comments from the interviews conducted in the qualitative phase of this study were consistent with these findings on the basis that first-generation students have a lower level of *Social Efficacy*. Rami is a first-generation Residential College participant and scored *average/low* on the *Social Efficacy* subscale. When asked about influential interactions within the Residential Colleges, Rami responded by saying,

> "It was nice to have the social aspect because it is really easy to get caught up in academics and not socialize and I know that I have the tendency to get lost in my studies."

Rami expressed that she often spends a great deal of time on her academic responsibilities and has limited social time, indicating a lack of academic and social balance as a college student. This response illustrates the difficulty that first-generation students have concerning social efficacy despite the fact they are involved in the Residential College.

Non-First Generation Students' Academic Self-Efficacy and Intrinsic Goal Orientation

After examining differences between postsecondary transition program models within non-first-generation college students, it was found that non-first-generation college students who participated in Residential Colleges had more confidence in their abilities to complete academic tasks (i.e. Academic Self-Efficacy subscale). Additionally, their perception of completing tasks due to real interest and to increase knowledge (i.e. Intrinsic Goal Orientation) was higher than non-first generation college students who participated in the Developmental Academic program. The enhanced college self-efficacy measure within the Residential College program was previously explained by in and out of classroom learning experiences and faculty-in-residence supplemental instruction.

The statistically significant intrinsic goal orientation measure described as students' perception of completing tasks due to real interest and to increase knowledge can be explained by the distinction that Residential Colleges being organized based on students' interests and major. Moreover, since Residential Colleges expose students to courses and pathways that help them to reach their goals, students become more interested in completing tasks for the purpose of increasing their knowledge as a result of having real interest in the topics presented. For example, students who are interested in a career in the Sciences are placed in the Science Residential College, where they are exposed to courses and pathways that will help them to achieve their individual goals. In addition, students who are not sure about their career choice can participate in the Career Explorations Residential College, which will expose them to options related to their personal interests, leading them on a path to developing career goals. Focusing on student's interests and majors is a distinction not offered by the other postsecondary transition programs included in this study and informs student's intrinsic goal orientation. This finding is consistent with that of Kuh (2007) who in a national study found that students who participate in

living learning communities have higher levels of academic engagement than students who did not participate in living learning communities. Anderman & Patrick (2012) posit that goal orientation and engagement are related. Moreover, students' social contexts that they participate in such as living learning communities, influences their goals.

After examining differences between postsecondary transition program models within female students, it was found that female students who participated in the Residential College program had more confidence in their ability to complete academic tasks and in their ability to manage time and study environments than female Developmental Academic and First Year Intervention program participants. Offering a semi-structured learning environment within a residence hall (i.e. course-specific learning and study groups) is a Residential College program distinction that female participants experience and female participants from the other postsecondary transition programs do not experience. Based on this finding and distinction, it is posited that the semi-structured learning environment offered within the Residential College program influences time and study environment management, leading to higher levels of confidence in female's ability to manage their time and study environment in comparison to females from the Developmental Academic and the First Year Intervention postsecondary transition program.

This finding is consistent with Kelly, Kendrick, Newgent, & Lucas' (2007) study on intervention strategies which could reduce attrition rates among college students whose implications call for transition programs targeting study skills and time management, which should be offered to first-generation students on the college level, assisting in their cognitive development and enhancing their self-confidence (Kelly, Kendrick, Newgent, & Lucas, 2007). This research holds true for females in this study as well.

Comments from interviews conducted during the qualitative phase of this study further supported the finding on females and time and study environment management. The female Residential College participant displayed more confidence in her comments about time and study environment management than the female Developmental Academic participant. When asked about any barriers or challenges that hindered her academic success, Janet, a female Developmental Academic program participant responded,

> Not knowing how to study. I still to this day do not know how to study for tests. As much as people tell you to make flash cards, review this, review that, but it's like when you get the test it's a whole another story because the way in which you study is not the way the teacher is going to present it to you….It's like you have to think,…

Casey, who participated in the Honors Residential College, explained that

> The residential college just fosters where we are only in one place because I have at least four people in every class and they are living in the same dorm as me, which works as far as discipline. So that is more of a people foster come together and work on a project or study the same class you might be in or anything else….I am staying there next semester. It is the exact type of environment you want to be in. I can study…everybody else will be doing the same thing.

As illustrated by Janet and Casey's responses, it is evident that the Residential College program influences participants time and study environment management more so than the Developmental Academic program.

After examining differences in male and female Residential College participants' levels of self-efficacy beliefs, it was found that male students who participated in the Residential College program had more confidence in their abilities to adjust interpersonally and socially and applying previous knowledge to new situations to solve problems was higher than females who also participated in the Residential College program.

Regarding social efficacy, this finding contrasted with Gore et al. (2005), who found that women had higher levels of college self-efficacy, and fulfills the recommendation that gender

differences in self-efficacy should be explored more. An additional contrast is Wright, Jenkins-Guarnieri, & Murdock (2013) finding that females had higher odds of being academically successful. In their study on male and female engineering students' self-efficacy, Burger et al. (2010) found that females are more involved in campus life and had more social support from clubs and friends than males did, which directly contrasts with the social efficacy finding from the current study. The current study extends this body of research by comparing female's self-efficacy beliefs on a number of subscales as opposed to generalized college self-efficacy, as well as the type of postsecondary transition program they participate in.

As aforementioned, a distinction of the Residential College program is the opportunity for students to socially connect with their peers in and out of the classroom, in addition to faculty-in-residence, which creates a social support network. This finding regarding male Residential College participants having higher social efficacy than females opens up the focus on research on subscales of self-efficacy and other mediators of academic performance in college. Although previous research has found that females are likely to be more academically successful and have a higher generalized self-efficacy than males (Chee, Pino, & Smith, 2005; Sheard, 2009) does not necessarily mean that females are more confident than males in all areas of self-efficacy.

After examining differences in male and female Residential College participants' levels of self-efficacy beliefs, it was found that male students who participated in the Residential College program had more confidence in their abilities to apply previous knowledge to new situations to solve problems was higher than females who also participated in the Residential College program.

After examining differences between postsecondary transition programs within the high income group, this study found that students from a high income background who participated in the Residential College program had more confidence in their ability to complete academic tasks than other students from high income backgrounds who participated in the Developmental Academic program.

An additional finding from this study was that students from low income backgrounds who participated in the Residential College program had more confidence in their ability to learn collaboratively with their peers than students from low income backgrounds who participated in the Developmental Academic program. As mentioned in relation to a previous finding the Residential College program offers more opportunities for peer learning than the other postsecondary transition programs included in this study. Low income students are considered at-risk based on their lack of knowledge about the college environment, making it difficult to navigate college and unaware of hidden rules and expectations (Becker et al.; 2009; Jehangir, 2009). However, Engstrom and Tinto's (2008) research is consistent with the current study's finding which posited that low income students who participated in a learning community were more engaged socially and academically.

Comments from the qualitative phase of the study are consistent with this finding. When asked about her experience in the Residential College, Jewel, whose reported parent annual household income fell in the *Low Income* range, expressed

> I really like it. Especially with people who are all in my major…so a couple of weeks ago I had a test and there were a couple of answers on the study guide that I wasn't too sure about. So I just went down the hall and knocked on different doors. You have this question and they were like 'Yeah, you got this question?',…So it was like…we would talk about it. So that is the part about having people who are taking the same classes that you are and we can all discuss and help each other that way. That's the good part. And just the fact of having a close-knit group, you know, we will go to the kitchen and hang out and eat or go to the study room and study together or go to the TV room and watch TV and hang out, just like, I love it.

When asked about communicating with her peers, Developmental Academic student Janet responded,

> No, I don't have a social thing going on at school." Janet further explained "I don't want to get to know someone and like all of a sudden stop…Some people depend on other people to help them get through school so they will be able to party and stuff like that. Like my social life won't interact with the partying and the school, like [the University] is supposed to be a big party school so it's like I won't be able to go out with them and you know like when some people, you study with them but when it's time to go out they don't want to do it and stuff. Some people think that's like acting funny and like she don't want…she just doesn't like it. I just don't want to get into that. I don't like that.

Jewel and Janet's responses illustrate how students in Residential College programs have higher levels of peer learning than Developmental Academic students.

An additional finding from the current study was that students from high income backgrounds who participated in the Residential College program had more confidence in their ability to complete academic tasks than students from low income backgrounds who also participated in the Residential College program. This finding is consistent with that of Becker et al.'s (2009) and Jehangir's (2009) conclusions that low income students are at-risk due to limited knowledge about college, which could be an underpinning explanation for why high income students had higher college self-efficacy than low income students in the Residential College.

These findings, after comparing students' self-efficacy beliefs based on income range, extends academic-self-efficacy research by accounting for a demographic variable like income range to determine if it is factor that influences students' college self-efficacy.

Developmental Academic. In this study, Developmental Academic postsecondary transition programs are defined as programs that target at-risk students who are admitted to a university with a probationary status due to not meeting regular admissions requirements and consist of series of workshops that covers the tools and strategies that students need to be

academically successful. A distinction of the Developmental Academic program is that is focuses strictly on developing academic skills (i.e. study skills, learning styles) for first year college students. These skills are delivered through a series of workshops and which do not include a resident component.

Differences between levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models were examined. There were statistically significant differences in levels of college self-efficacy between students who received services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models. Specifically, this study found that male students who participated in the Developmental Academic program had more confidence in applying previous knowledge to new situations (i.e. critical thinking) than female Developmental Academic program participants. This finding contrasts with other research that found that females have higher levels of critical thinking than males (Walsh, 1996).

After examining differences between students based on income range with the Developmental Academic program, this study found that students from middle income backgrounds who participated in the Developmental Academic program had more confidence in their ability to adjust interpersonally and socially than students from low income backgrounds who also participated in the Developmental Academic program. This finding is relative to the finding that low income students are considered at-risk and are limited in their knowledge about connecting to the college environment (Becker et al.; 2009; Jehangir, 2009). Since the Developmental Academic program included in the current study did not provide a social support development component in its delivery of academic skills, it is apparent that this finding may be

a result of income status functioning as a person input, providing support for the SCCT model (Lent et al, 1994). For low income students in the Developmental Academic program, the output resulted in a lack of interpersonal and social adjustment.

In addition, this study found that students from high income backgrounds who participated in the Developmental Academic program had more confidence in their ability to learn collaboratively with their peers than students from low income backgrounds who also participated in the Developmental Academic program. Although the Developmental Academic program included in this study did focus on academic skills for enhanced learning, peer learning opportunities were limited. As previously mentioned, it is speculated that this finding could be the result of a person input based on student income range and not necessarily a result of services provided by the Developmental Academic program or lack thereof.

Janet, whose reported parent annual household income falls in the Low Income category and participated in a *Developmental Academic* postsecondary transition program. During the qualitative phase of this study, when asked about communicating with her peers, Janet responded,

> No, I don't have a social thing going on at school." Janet further explained "I don't want to get to know someone and like all of a sudden stop…Some people depend on other people to help them get through school so they will be able to party and stuff like that. Like my social life won't interact with the partying and the school, like [the University] is supposed to be a big party school so it's like I won't be able to go out with them and you know like when some people, you study with them but when it's time to go out they don't want to do it and stuff. Some people think that's like acting funny and like she don't want…she just doesn't like it. I just don't want to get into that. I don't like that.

Janet's response illustrates how students from low income backgrounds participating in Developmental Academic programs have lower confidence in peer learning.

First Year Intervention. In this study, First Year Intervention postsecondary transition programs are defined as retreat-style and immediately engages student participants in campus life

by providing lodging for the duration of the program and covering topics like Academic Success; College Readiness; History & Traditions; Involvement; Leadership Development; Relationship Building; and Student Services (Noel-Levitz, 2011). Differences between levels of college self-efficacy between students who receive services from *Developmental Academic, Residential College, or First Year Intervention* postsecondary transition program models were explored.

After examining comparisons between low and high ACT students within each postsecondary transition program, significant and non-significant differences on the self-efficacy subscales were compared between the three postsecondary transition program models. Based on the non-significant differences, it was found that within the First Year Intervention program high and low ACT students were influenced equally on more college self-efficacy subscales than the Developmental Academic and Residential College program models. As shown in Table 53 in Appendix A, six of the seven subscales (i.e. time and study environment management, peer learning, social efficacy, intrinsic goal orientation, critical thinking, and course efficacy) reflected no difference between low and high ACT students and only one of the seven subscales reflected a difference (i.e. academic self-efficacy), which indicates a positive finding for First Year Intervention programs. Based on this finding, it is apparent that the initiatives provided by the First Year Intervention program for its participants are serving as a mediator by closing a potential gap between low and high ACT students' college self-efficacy beliefs.

As shown in Table 53 & 54 in Appendix A, a similar finding was observed within the First Year Intervention program that male and female students were influenced equally on more college self-efficacy subscales than the Developmental Academic and Residential College program models. The same was true for comparisons between low, middle, and high income students with the First Year Intervention program. All seven subscales (i.e. time and study

environment management, peer learning, social efficacy, intrinsic goal orientation, critical thinking, and course efficacy) reflected no difference between male and female students, which indicates a positive finding for First Year Intervention programs.

Theoretical Implications

The findings from the current study provide support for the SCCT theoretical framework (Lent, Brown, & Hackett, 1994) as illustrated previously in Ch. 4. The student inputs (i.e. *first-generation, gender, ACT scores, and parent income level*) in addition to the postsecondary transition program that the student participated in (i.e., *Developmental Academic, Residential College*, *First-Year Intervention*) were analyzed to determine their impact on the students' college self-efficacy beliefs. Congruent with this theory, there were differences between students' college self-efficacy beliefs based on student inputs and the postsecondary transition program that they participated in which yielded difference levels on the subscales, as explained in the summary of findings. The researcher proposes that SCCT be used as the theoretical framework in research that examines the impact of various program interventions on college students' college self-efficacy beliefs.

The research covered in this study contributes to the literature about college students' college self-efficacy by using a mixed methods approach, which met recommendations mentioned in the literature (Strayhorn, 2010). The individual interviews provided more insight into students' self-efficacy scores via personal interviews rather than depending solely on quantitative data. The data collected during the qualitative phase of this study revitalized the quantitative data and created a deeper level of understanding the findings.

Implications for Practice

Previous research confirms that persistence through college and academic success is mediated by college self-efficacy (Robbins et al., 2004), which confirms the importance of studying variables such as college self-efficacy in relation to persistence and academic success initiatives (Friedman & Mandel, 2009). The findings from this study suggest several positive indicators for practitioners in the field of postsecondary transition programs. When comparing postsecondary transition programs, Residential Colleges proved to have the most impact on student's college self-efficacy overall in comparison to Developmental Academic and First Year Intervention programs with Residential College participants having higher levels of college self-efficacy than Developmental Academic and First Year Intervention participants.

Policy makers and administrators in the field of postsecondary transition programs should strongly consider using this finding as a means to expand the Residential College program to first year college students. Alternately, policy makers and administrators should consider funding initiatives that will create a postsecondary transition program framework where Developmental Academic and First Year Intervention initiatives offer similar Residential College program components that make a difference in college self-efficacy beliefs in particular student groups.

Considering non-first-generation students, Residential College participants had higher levels of college self-efficacy than non-first-generation students and females who participated in the Developmental Academic program. The same was true for female Residential College students, having more confidence in their ability to be successful in college and in their time and study environment. The Residential College uses a more holistic approach to address factors that affect first year of college students, providing a living-learning environment for participants (Kuh, 2007). Developmental Academic programs, which focus on developing academic skills is

not as holistic in nature. The holistic approach used in Residential Colleges could be the underpinning for this finding, which informs Developmental Academic program practitioners to incorporate other facets of the postsecondary transition experience in addition to academic facets for student participants (i.e. non-residential learning communities).

As aforementioned in the current study, a first-generation college student status can be considered a barrier from the SCCT perspective (Ishitani, 2006). Findings from this study showed that although Residential Colleges foster higher levels of college self-efficacy, first-generation students still had lower levels of social efficacy than non-first-generation students. Based on the SCCT perspective that first-generation is considered a person input, practitioners within Residential Colleges should consider targeting first-generation students when developing specific programming and interventions for Residential College participants. Developing a social support network would be a way that first-generation student could develop higher levels of social efficacy; therefore Residential College practitioners should focus on ways to increase social supports for first-generation colleges students within the Residential College environment.

Interestingly, males Residential College participants had more confidence in their abilities to adjust interpersonally and socially than female Residential College participants. Addressing this finding will require Residence Life administrators to consider a social component geared specifically toward female participants. Although the research previously mentioned found that female students are more academically successful and have more social support than their male counterparts, the findings in this study show that females are not as confident in their social adjustment to college. Within Residential Colleges, males also had more confidence in their critical thinking abilities than females. The social supports offered in Residential Colleges should be examined more closely to find an explanation for why males are

more confident in their social efficacy than females. Despite the assumption that both groups may be exposed to the same social support network development their level of interpersonal and social adjustment is significantly different. Similar to the finding regarding first-generation Residential College participants, practitioners should consider programming and interventions that will increase social supports and networks for female participants. They should also seek ways to assist female students to enhance their critical thinking abilities by possibly marketing more undergraduate research opportunities among the female student population.

In response to SCCT (Lent, Brown, & Hackett, 1994), demographics variables were included in this study as person inputs. Based on the findings in this study, practitioners should consider students' income background as a demographic factor when assessing student's need for the purpose of providing a seamless transition to college. Residential College participants from low income background had more confidence in their ability to learn from their peers than Developmental Academic program participants from low income backgrounds. In addition, high income Residential participants had more confidence in their ability to be successful in college than Residential College participants from low income backgrounds. This suggests that practitioners should consider income background as a possible factor when determining student selection into the Residential College program.

Middle income Developmental Academic program students had more confidence in their social efficacy than low income Developmental Academic students and it is suggested that practitioners consider ways to implement a social support component for student participants. While still offering academic skills development, creating more opportunities for students, particularly low income students, to connect with their peers can begin the development of their

social support network on campus. The intent should be to increase social efficacy among low income students.

Similarly, Residential Colleges should consider creating interventions for low income student participants to address the challenges that they face when arriving on the University campus. Although Residential Colleges provide a holistic transition program for students, the current study showed a gap between high income and low income students on the college self-efficacy measure. Residence Life administrators should develop interventions for low income students that will help them to increase their confidence in completing academic tasks. A mentoring program focused on developing academic skills within the Residential College could be an effective practice that would enable low income students.

Practitioners in Developmental Academic programs should consider targeting females for critical thinking workshops based on the finding that males had more confidence in their critical thinking abilities.

Recommendations

This study consisted of only a posttest, which took place after the study participants' first semester of college and as a participant in one of the postsecondary transition programs. Since previous research has found that college students become disengaged during their sophomore year (Graunke & Woosley, 2005), further research could conduct a pretest at the end of the first semester and a posttest at the beginning of the following spring semester (second semester of sophomore year). Based on the finding that students begin to disconnect during their sophomore year, it would be interesting to know how their college self-efficacy was influence over time.

In the current study, the participation in postsecondary transition programs and their impact on college self-efficacy was examined. However, students' frequency of participation in

said programs was not measured. After reviewing the findings from this study, the researcher would have liked to determine is the frequency or level of participation in each program would have accounted for more of the variance in college self-efficacy. Further research that examines program intervention's impact on college self-efficacy should measure students' frequency of participation in the program intervention. Frequency of participation should be included as a variable in these kinds of studies.

Limitations

One of the limitations of this study was the definition of first-generation college student. This study did not account for students who may have an older sibling in college or possesses a college degree. The present study used the definition of a first-generation college student (i.e. student whose parents did not earn a college degree). The strong possibility that some of the participants, although first-generation, may have an older sibling in college or who graduated from college could skew the measurement of college self-efficacy.

An additional limitation in this study was that the researcher did not have control over postsecondary transition program selection. Students self-reported their participation in the program on the online survey and did not select or assign students to programs. Frequency of participation in each postsecondary transition program on the part of the student was not tracked and was not a variable in the study analysis.

The postsecondary transition programs included in this study (i.e. Developmental Academic, Residential College, and First Year Intervention) were specific to the University which was the setting for this research. Each postsecondary transition program model is varies between university and college campuses, making this research limited in generalization and applying to other campuses and programs.

The Residential College program at the University consists of eight separate Residential Colleges which are specific to certain interests and majors (i.e. Science, Mass Communication, Information Technology, Honors, Career Exploration, Engineering, Business, and Agriculture). Survey respondents were not asked to specify which Residential College they were a part of, therefore it was not considered as a variable in the data analysis.

Although only a post-test was conducted in this study, a pre-test would have been optimal to compare student participants levels of college self-efficacy before their participation in a postsecondary transition program and after a semester of participation in the program.

A threat to internal validity regarding differential selection of subjects was an additional limitation in this study. Since each postsecondary transition program participant group was selected based on different selection criteria, it is plausible that a selection factor was operating since the groups were not equivalent. Specifically, since the Residential College and First Year Intervention programs involve a selection process and the Developmental Academic program does not, the impact examined may have been due to the groups of subjects not being randomly assigned or selected.

Since there were seven different subscales and a large number of comparisons examined in this study, the risk Type I error was great. However, in an effort to protect against Type I error, post-hoc comparisons were examined, Post-hoc comparisons were designed to guard against Type I effort in studies involving a large number of comparisons (Pallant, 2010).

It should be noted that the findings regarding first-generation students and low income students which were produced from within each postsecondary transition group analysis should be reviewed with caution as a result of the small sample sizes. Since this study was conducted at a large research university, small sample sizes of first generation and low income students can

sometimes be a problem because there are disproportionate numbers of first-generation and low income students in comparison to their counterparts. This is due to limited numbers of students who participate in these programs. However, based on the literature that confirms the challenges that first-generation and low income students face (Bui, 2002; Gibbons & Shoffner, 2004; Aries and Seider; 2005; McCarron & Inkelas, 2006; Engle and Tinto, 2008; Cho, et.al, 2008) it is important to explore the college self-efficacy trends among this group. The first generation and low income student, within postsecondary transition program group findings should be considered exploratory. It is recommended that college self-efficacy trends among this underrepresented group be explored with larger sample sizes.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL

Application for Exemption from Institutional Oversight

Institutional Review Board
Dr. Robert Mathews, Chair
131 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
irb@lsu.edu
lsu.edu/irb

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/ projects using living humans as subjects, or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.

-- Applicant,Please fill out the application in its entirety and include the completed application as well as parts A-F, listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at http://research.lsu.edu/CompliancePoliciesProcedures/InstitutionalReviewBoard%28IRB%29/item24737.html

– A Complete Application Includes All of the Following:
(A) Two copies of this completed form and two copies of parts B thru F.
(B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1&2)
(C) Copies of all instruments to be used.
*If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
(D) The consent form that you will use in the study (see part 3 for more information.)
(E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training link: (http://phrp.nihtraining.com/users/login.php)
(F) IRB Security of Data Agreement: (http://research.lsu.edu/files/item26774.pdf)

1) Principal Investigator: Shanea' Morrison **Rank:** Ph.D. Candidate

Dept: ELRC **Ph:** 225.578.4319 **E-mail:** smorr18@lsu.edu

2) Co Investigator(s): please include department, rank, phone and e-mail for each
*If student, please identify and name supervising professor in this space

Dr. Roland Mitchell, Associate Professor, ELRC, 225.578.2156, rwmitch@lsu.edu

IRB# E6057 LSU Proposal #
① ✓ Complete Application
② ✓ Human Subjects Training

3) Project Title: Dissertation Research: The Impact of the Student Support Services Program on Academic Self-Efficacy Beliefs in First-Generation College Students

Study Exempted By:
Dr. Robert C. Mathews, Chairman
Institutional Review Board
Louisiana State University
203 B-1 David Boyd Hall
225-578-8692 | www.lsu.edu/irb
Exemption Expires: 8/13/2015

4) Proposal? (yes or no) No **If Yes, LSU Proposal Number**

Also, if YES, either ◯ **This application completely matches the scope of work in the grant**
OR ◯ **More IRB Applications will be filed later**

5) Subject pool (e.g. Psychology students) Student Support Services Students & First-generation Students

*Circle any **"vulnerable populations" to be used:** (children <18; the mentally impaired, pregnant women, the ages, other). Projects with incarcerated persons cannot be exempted.

6) PI Signature **Date** (no per signatures)

**** I certify my responses are accurate and complete.** If the project scope or design is later changes, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted ✓ Not Exempted ____ Category/Paragraph 1

Signed Consent Waived?: Yes / No

Reviewer Mathews **Signature** Robert C Mathews **Date** 8/14/12

APPENDIX B: INTERVIEW PROTOCOL

Each interview was facilitated by the researcher who used an interview protocol consisting of the following guiding questions:

1. Tell me about yourself (where are you from?, your background)
2. Why did you choose to attend college?
3. What expectations do you have for your experience at this University when you first arrived?
4. What was your first semester at the university like for you? What were some of the factors that influenced your first semester?
5. How did your high school experience influence your first semester at the university?
6. Tell me about your experience in the [respective postsecondary transition program].
7. What would you say was the most valuable experience in the [respective postsecondary transition program].
8. Could you complete this sentence: I feel confident as a student/learner when____. I don't feel confident as a student/learner when____. Please provide examples.
9. Rate your current confidence in your ability to earn your degree at the University on a scale from 0 to 9. Can you help me understand your rating?
10. What resources influence this rating?

VITA

Shaneá Yvonne Morrison was born in Lafayette, Louisiana and raised in Scott, Louisiana. She attended high school at Acadiana High School in Scott, LA. She earned a Bachelor of Arts degree in Interpersonal Communication from the University of Louisiana at Lafayette in the fall of 2003. After working in the non-profit sector for several years, Shaneá began her career in higher education by accepting a position at the Community Director of Legacy Park at the University of Louisiana at Lafayette. Shaneá later transitioned to the TRIO Educational Talent Search program as an Educational Counselor, and relocated to Baton Rouge to become to Assistance Director of the McNair Research Scholars program at Louisiana State University. Her most recent appointment is Director of Student Success at College of the Ouachitas in Malvern, AR. Shaneá earned her doctorate in educational leadership and research with an emphasis on higher education administration in May of 2014, completing a dissertation that examined the college self-efficacy beliefs of postsecondary transition program participants.